DOCUMENT RESUME

ED 061 446 VT 014 987

| | |
|---|---|
| TITLE | Summaries of Research Studies in Agricultural Education, Southern Region, 1970-71. |
| INSTITUTION | Louisiana State Univ. and A and M Coll. System, Baton Rouge. School of Vocational Education. |
| PUB DATE | 71 |
| NOTE | 63p. |
| EDRS PRICE | MF-$0.65 HC-$3.29 |
| DESCRIPTORS | *Abstracts; *Agricultural Education; *Agricultural Research Projects; *Annotated Bibliographies; Doctoral Theses; *Educational Research; Masters Theses; Vocational Education |
| IDENTIFIERS | Southern Region |

ABSTRACT

This compilation of research in agricultural education contains abstracts of studies completed during 1970-71 in the American Vocational Association Southern Region. The abstracts are arranged alphabetically by author and include the purpose, methodology and findings. Studies are available on loan from university libraries and departments. In addition, a listing of research studies in progress for 1971-72 is provided. (SB)

ED 061 446

# SUMMARIES OF RESEARCH STUDIES IN AGRICULTURAL EDUCATION

## SOUTHERN REGION

## 1970-71

Louisiana State University and
Agricultural and Mechanical College
School of Vocational Education
Baton Rouge, Louisiana

VT014987

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

# SUMMARIES OF RESEARCH STUDIES IN AGRICULTURAL EDUCATION

## SOUTHERN REGION

## 1970-71

Louisiana State University and
Agricultural and Mechanical College
School of Vocational Education
Baton Rouge, Louisiana

# INTRODUCTION

This compilation of research in agricultural education includes summaries of 61 studies reported during 1970-71 from 9 states of the Southern Region.

Abstracts of studies completed in 1970-71 were reported by state departments of education and teacher education institutions in the region. All studies submitted are included in this report although some may not meet the criteria that were established for the selection of studies to be included in the division publication.

This compilation of Summaries of Research Studies in Agricultural Education is an activity of the Research Committee of the Agricultural Education Division of the American Vocational Association

Charlie M. Curtis
Southern Region Representative
Research Committee
Agricultural Education Division
American Vocational Association

SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION
SOUTHERN REGION, 1970-71

ALLEN, FLEET DEVOTION. Advisory Committee Organization, Role, and Utilization. North Carolina State University, Raleigh.

Purpose.-- The objectives of this study were to determine the North Carolina Secondary School Vocational Directors': (1) use of Vocational Advisory Committees in programming; (2) perception of the 67 selected programming roles general Vocational Advisory Committees should or should not become involved; (3) perception of the organizational structure a Vocational Advisory Committee needs for programming; and (4) agreement with a conceptual model, drawn from relevant literature, among local directors of the roles and organizational structure a Vocational Advisory Committee needs for programming.

Method.-- Data were collected from 44 Vocational Education Directors in North Carolina Secondary Schools and/or city districts on their presentation of the organization, role, and utilization of Vocational Advisory Committees in programming.

An instrument was developed using three major sections: (1) five demographic data items of respondents; (2) sixty-seven selected programming roles; and (3) fifteen organizational structure items. This instrument was mailed to all 47 Vocational Education Directors in North Carolina Secondary Schools.

Frequency distributions were developed for each of the personal characteristic variables. Percentages were computed for the 67 selected programming roles and the 15 organizational structure items to determine agreement with the conceptual model.

Findings.-- The data show that 80 per cent of the Vocational Education Directors do not use Vocational Advisory Committees in programming.

North Carolina Vocational Education Directors' consensus with the conceptual model on the 67 selected programming roles were found to be as follows: (1) high consensus on 63 per cent; (2) medium consensus on 30 per cent; and (3) low consensus on 7 per cent of the programming roles.

Consensus of the North Carolina Vocational Education Directors with the conceptual model on the 15 organizational structure items were found to be as follows: (1) high consensus on 20 per cent; (2) medium consensus on 20 per cent; and (3) low consensus on 60 per cent of the items.

The 44 North Carolina Vocational Education Directors, when compared with the 5 independent variables showed the following: (1) high consensus on 61 per cent; (2) medium consensus on 39 per cent; and (3) none with low consensus on the 67 programming roles when compared with the conceptual model.

BARLOW, WILLIAM P. A Study of Selected Aspects of Swine Production With Implications for Improving the Instruction By Teachers of Agricultural Education. Thesis, M.S., 1971, Virginia State College, Petersburg, Virginia.

Purpose.-- To review selected materials in certain aspects of swine production and to prepare a list of recommendations for use by teachers in their instructional programs.

Method.-- The writer examined pertinent materials which were available for study. From the comprehensive publications, the areas of management, health, feeding and judging were selected.

Findings.-- Feeding was found to be the major cost of producing swine. Special attention must be given to the ration for breeding stock. Sanitation ranked first in the control and the prevention of disease. Certain external parasites affect man and may be transmitted by swine in the handling process. Routine management practices will pay large dividends. A good producer will promote his activities through his swine program. A producer who sells quality products will receive premium prices.

BARNES, JAMES R. AND RICHARD A. BAKER. Employment Trends and Educational Needs in Farming in Alabama. Staff Study, 1971. Research and Development Report No. 7. 21 p. Occupational Research and Development Unit, Department of Vocational and Adult Education, Auburn University, Auburn, Alabama.

Purpose.-- The primary purpose of this study was to determine employment trends and training needs on selected Alabama farms.

Method.-- Survey instruments were mailed state-wide to 1,110 producers of varied farm products, nominated as outstanding farm operators. Of the producers surveyed, 362 (32.6 per cent) returned usable instruments.

Findings.-- Some significant findings based on the survey were as follows:

1. The average size farm of those producers reporting was 1,027.3 acres.
2. Fifteen per cent of the reporting producers were part-time.

3. Over 51 per cent of the farms were producing both crops and one or more types of livestock.
4. Timber ranked first among secondary production enterprises.
5. From 1967 through 1970, farm employment, based on the survey, declined at the rate of 1.62 per cent of full-time and 1.96 per cent of part-time employees per year.
6. The modal age category of responding producers was 45-54.
7. Of those producers responding to each item, 55.7 per cent studied vocational agriculture in high school, 28.8 per cent attended college and 64.0 per cent majored in agriculture while attending college.
8. Activity performance frequencies and frequencies of indicated training needs were determined.

BASS, B. C. Competencies Needed by Teachers of High School Ornamental Horticulture Courses. Staff Study, 1970. 50 p. Agricultural Education Office, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose.-- The primary purpose was to determine what areas of ornamental horticulture should be taught and to identify the competencies a person should develop in order effectively to teach the ornamental horticulture courses offered in the public schools in Virginia.

Method.-- Twenty-two agricultural education and ornamental horticulture specialists determined the areas of ornamental horticulture that should be taught and determined the extent a person should develop each of 96 competencies in order effectively to teach high school ornamental horticulture courses.

Findings.-- The specialists unanimously agreed that high school ornamental horticulture courses should include floriculture, landscape management, nursery management, and turf management.

Of 96 competencies considered, a majority of the specialists designated 66 (69 per cent) as essential for a teacher of floriculture, 59 (61 per cent) as essential for a teacher of landscape management, 76 (79 per cent) as essential for a teacher of nursery management, and 47 (49 per cent) as essential for a teacher of turf management.

BIFFLE, HAROLD T. Production Testing and the Teaching of Beef Production in Vocational Agriculture. Report M.S., 1971, Oklahoma State University. 36 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The major purpose of this study was to determine the extent to which a selected group of vocational agriculture teachers were emphasizing the concepts and principles of production testing in their teaching of beef production to high school students.

Method.-- Specific objectives were formulated to determine: (1) certain information about the teachers, including personal data and their previous experiences in beef production, (2) the importance teachers attach to selected resources for teaching beef production, (3) the extent to which selected beef production topics are included in vocational agriculture teaching programs, (4) the influence of selected factors on what is taught about beef production and (5) teachers' opinions on selected aspects of production testing and teaching of beef production. A questionnaire was administered to the ten vocational agriculture teachers in the Waurika Professional Improvement Group. The investigator provided detailed instructions to each respondent before administering the instrument. Then the completed questionnaires were collected by the researcher for tabulation.

Findings.-- It was found that a majority of the teachers were 30 years old and younger, had taught in their present positions for six years or less, had a B.S. degree, and had completed at least 13 hours above the B.S. degree. Half were beef producers themselves. Also, a majority had supervised show steer projects and registered and commercial beef breeding projects. However, less than half had supervised show heifer projects and carcass steer projects. All had been active in beef tours and field days. The core curriculum was ranked the number one resource for teaching beef production while texts were last. More total class time in Vocational Agriculture I and II was spent teaching beef production topics than for III and IV, but the majority of time for I and II was spent on topics of less relationship to production testing. Most of the teachers held favorable opinions toward production testing. The commercial cattle market ranked first among the list of factors influencing what is taught in beef production while prices of bulls in sales ranked last.

BREWER, DONALD E. An Identification of Selected Characteristics of Students Participating in Certain FFA Competition Events. Report M.S., 1971, Oklahoma State University. 39 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of the study was to identify and compare selected characteristics of students participating in FFA judging contests.

Method.-- Four vocational agriculture departments were included in the study from which 118 questionnaires were returned after being completed by the juniors and seniors of each department. The respondents were divided into three groups to be studied: respondents with a high degree of participation, referred to as Group A; respondents who had a low degree of participation, referred to as Group B; and respondents who had never participated in contests, referred to as Group C. Findings from the questionnaire were tabulated and comparisons were made between the three groups.

Findings.-- It was found that a larger percentage of the students of Group A lived on farms and had a slightly higher parental net income level than Groups B and C. Students in Group A also participated more frequently in a greater number of FFA and other school activities, participated to a larger extent in 4-H Club work, and had supervised training programs of larger value. One of the more important findings of the study was that the respondents categorized as high participants, Group A, were found to have grade point averages in both agricultural and non-agricultural courses which were considerably higher than grade points of Groups B and C. Most students in group A planned to attend college, while most in Groups B and C planned to seek vocational-technical training after high school.

BURNS, JAMES L. Effectiveness of the Vocational Agriculture Program at Spearsville High School. Thesis, M.S., 1971. Louisiana State University. 86 p. Department of Agricultural Education, Louisiana State University, Baton Rouge.

Purpose.-- This study was concerned with the effectiveness of the Vocational Agriculture instructional programs at Spearsville High School. A followup study of former students majoring in vocational agriculture was made for the periods of 1962-1966 and 1966-1970.

Method.-- The mail questionnaire and interview techniques were used. Of 62 graduates involved 92 per cent responded.

Findings.-- None of the former graduates in the period 1966-1970 are engaged in farming; 30 per cent are in nonfarm agricultural occupations; 20 per cent are attending agricultural colleges; 13.3 per cent are in occupations not related to farming; 13.3 per cent are in the armed services; 13.3 per cent are unemployed and 10 per cent are attending non-agricultural colleges.

For the period 1962-1966, 11.1 per cent of the graduates are engaged in farming; 51.9 per cent are in nonfarm agricultural occupations; 3.7 per cent are attending agricultural colleges; 14.8 per cent are in occupations not related to farming; 14.8 per cent are in the armed forces; and 3.7 per cent are in non-agricultural colleges.

Of the graduates surveyed for period 1966-1970, 90 per cent chose option B for their last two years of vocational agriculture and 92.9 per cent of those working indicated that vocational agriculture training was adequate for job entry. For period, 1962-1966, 75 per cent of those working indicated vocational agriculture training was adequate for job entry.

All working graduates except one indicated vocational agriculture was very beneficial or beneficial in securing a job.

The more desirable characteristics of the production agriculture program are field trips, shop work and farm mechanics and FFA. Graduates of the job oriented program placed shop work and farm mechanics first and the option program next.

Classroom instruction was the least desirable characteristic of the program. More related field trips and shop work would improve the total program.

All graduates would recommend vocational agriculture to beginning students.

Areas of instruction most popular were (1) Livestock, (2) Supervised experience program, (3) Leadership, and (4) Farm Mechanics and Shop.

CRUNKILTON, JOHN R. Data for Evaluation of the James Wood High School's Agricultural Education Department. Staff Study, June, 1971. Virginia Polytechnic Institute and State University. 163 p. Agricultural Education Division, Virginia Polytechnic Institute and State University. Blacksburg.

Purpose.-- The primary purpose of this study was to test the model for evaluation of secondary school programs of vocational education in agriculture.

Method.-- One school was selected to test the model in Virginia. One hundred students comprising the last four years of graduates from the agricultural education program were included in the study. Data were collected from the student's accumlative file, their employment record since graduation, continuing education activities of the students, social activities of the students, employer satisfaction with the graduates, uses made of agricultural skills and abilities, attitude of adults in the community towards the agricultural program, and data relating to the agricultural education program. The Agricultural Education Advisory Group was involved in the study, and in cooperation with the researcher and consultants, suggestions and recommendations were made for program improvement and suggestions for improvement in data collecting instruments.

Findings.-- The agricultural education program was serving students with a wide range of abilities and opportunities for success in the agricultural courses were prevalent.

Each year more students are participating in off-farm occupational experience programs than farming programs.

Graduates were prepared to enter agriculture and non-agricultural jobs. Employers were satisfied with the competencies and attitudes possessed by the graduates.

The following agricultural abilities were used the most: repairing, maintaining, and operating various machinery; using safety equipment and practices; reconditioning and caring for hand tools; electrical wiring; applying and obtaining a job. Agricultural skills and abilities used the least were: testing milk; plant breeding and hybrid seed production; irrigation planning and maintenance, surveying; inspecting crops; and shearing and clipping animals. Adults in the community expressed strong agreement that agriculture be available to girls; instruction should include areas of crops and soil and conservation of soil, water, forest and wildlife; and that FFA should be used to develop desirable citizenship characteristics in students.

More agribusinesses are available as training centers for occupational experience programs than are now being used.

Recommendations for program improvement were based upon data similar to that reported above.

CRUNKILTON, JOHN R. Testing of Model for Evaluation of Secondary School Programs of Vocational Education in Agriculture. Staff Study, June, 1971. Virginia Polytechnic Institute and State University. 65 p. Agricultural Education Division, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose.-- The primary purpose of this study was to test the model for evaluation of secondary school programs of vocational education in agriculture.

Method.-- One school was selected to test the model in Virginia. One hundred students comprising the last four years of graduates from the agricultural education program were included in the study. Data were collected from the student's accumlative file, their employment record since graduation, continuing education activities of the students, social activities of the students, employer satisfaction with the graduates, uses made of agricultural skills and abilities, attitude of adults in the community towards the agricultural program, and data relating to the agricultural education program. The Agricultural Education Advisory group was involved in the study, and in cooperation with the researcher and consultants, suggestions and recommendations were made for program improvement and suggestions for improvement in data collecting instruments.

Findings.-- The model for evaluation did prove to be a viable means by which sufficient and reliable data can be collected for critical analysis and used for program direction.

The support and interest exhibited by the school board, administrators, teachers, advisory group, and local agribusiness indicated the value placed upon the necessity for evaluation as part of the total program.

That the follow up of graduates who have been out of school three or more years does not add significantly to the data when compared against the data collected on the students who have been out of school one or two years.

That the data collection procedure used in the study is an effective means by which the data can be collected from the students, agribusiness, adults, and the local agricultural program.

CRUNKILTON, JOHN R. The Vocational Education Needs of Montgomery County. Staff Study, December 1970. Virginia Polytechnic Institute and State University. 65 p. Agricultural Education Division, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose.-- The primary purpose of this study was to develop a vocational education curriculum designed to meet the needs of Montgomery County students.

Method.-- Major businesses, employment offices, employment records, and projected employment opportunities were used as a major basis to determine employment trends and types of occupational opportunities available to graduates in the future. Current school curriculums, drop-out rates, plans of the graduating seniors, and number of disadvantaged students were used to determine the current scope of vocational offerings and areas of needed improvement. The data collected from these efforts served as a foundation for the development of a recommended vocational curriculum for the county.

Findings.-- The major areas of employment in Montgomery County were manufacturing trades, retail trades, agriculture and construction.

All occupational areas were expected to expand in the future due to the expansion of two universities, commercialization, and an increase in the population.

The vocational offerings available to secondary students were limited in two of the four high schools.

Major reasons that students gave for dropping out of school during an eight year period from 1959-67 were; lack of interest, compulsory age, marriage, and employed.

Follow-up data concerning placement of vocational duates were lacking in most schools. Plans of graduating seniors were that 53 per cent of the seniors were planning to enter a 2 or 4 year college, 7 per cent planned to enter a trade or technical school and 26 per cent planned to work immediately upon graduation.

Selected recommendations made for the county were: Business Education, Distributive Education, Home Economics, and Trades and Industrial Education be made a part of the vocational program; that an informative program be prepared to acquaint all students with the world of work opportunities; that a follow-up system for graduates be developed and implemented; that vocational programs for the disadvantaged be expanded; and that vocational education be made available to all students within the county.

DAVIS, MALCOLM E. A Study of the Character of Selected Principles and Practices Which Certain Teachers of Agricultural Education Observed in Conducting Instructional Programs in Electricity. Thesis M.S., 1971, Virginia State College. 50 p. Library, Virginia State College, Petersburg.

Purpose.-- To ascertain the nature of certain aspects of the instructional program and to prepare a list of recommendations for use by teachers.

Method.-- Ninety teachers were asked to react to thirty factors and/or practices which were associated with the teaching of electricity at the secondary school level and the replies were summarized. The pertinent information served as the bases for the conclusions and recommendations.

Findings.-- The demonstration was considered to be the most effective device for teaching electrical symbols.

Understanding of the electron theory was not considered to be of great value by the instructors.

Teachers tended to practice economy as far as teaching materials were concerned.

The majority of the teachers made extensive use of hand-outs.

Magnetism and the flow of water were frequently utilized in explaining the elementary phases of electricity.

Voltmeters, ammeters and wattmeters were used by each teacher.

Field trips were not common practices.

Carelessness and improper training were listed as the greatest causes of accidents.

Instruction in safety practices was considered to be very effective.

The teachers, in general, expressed a desire for either additional or refresher training in agricultural education.

EADDY, VANIK S. Modifying Programs of Vocational Education to Meet Changing Needs of People in Rural Areas. Final Report Institute III, Grant No. OEG-0-9-430472-4133 (725), 1970, 162 p. U. S. Office of Health, Education and Welfare. Auburn University, Auburn. (Available through ERIC Clearinghouse for Vocational and Technical Education)

Purpose.-- The central purpose of Institute III was to bring together a task force of vocational and related personnel serving rural areas throughout the United States to consider the modification of existing programs to meet the changing needs of rural people. Furthermore, it was intended that each participant would be established as a change agent in his own area to act as a team member in effecting planned change.

Procedures & Activities.-- Institute III was a working conference designed to establish an understanding of rural vocational education problems, devise solutions to those problems, and develop the ability of participants to implement desired change upon return to home station. Included in the program were major presentations and working papers to provide facts, stimulate thought, and provoke participant reaction.

Work groups were formed for the development of operational vocational education models which could be implemented in rural settings throughout the United States. Six work groups, consisting of approximately 20 persons each, were assigned to the task of designing a functional vocational education model for a rural population age group. The population age groups studied were the following: Kindergarten through Eighth Grade, Consolidated Secondary Vocational Education Program, Isolated Secondary Vocational Education Program, Vocational Adult Education, Post-Secondary Vocational Education Program, and Rehabilitation Services in Vocational Education for the Disadvantaged and Handicapped in the Rural Environment.

Outcomes.-- An assessment of the trainee reactions to participation in Institute III made possible the conclusion that the program was successful in achieving the stated objectives. It revealed that many of the participants established meaningful professional contacts which will be continued. These contacts have resulted in the exchange of ideas and will continue to assist in the diffusion of information for the improvement of rural vocational education.

As a result of this program over 85 per cent of the participants have indicated plans to modify existing or future work. A profound impact will be made upon rural vocational planning because of the innovative programs and pilot projects being established or continued by the institute participants. Each participant was requested to develop a statement of intent and a general plan for implementing a new service or modifying an existing program. The proposals submitted represented a major undertaking which spanned the entire spectrum of vocational education programs and levels of responsibility.

The combined efforts of the participants, consultants, and institute staff resulted in the development of six models for the establishment of comprehensive rural vocational education programs. These models were designed for population age groups ranging from kindergarten through the post-secondary level. Also included were vocational adult education and rehabilitation services in rural vocational education settings.

Recommendations were made for the improvement of rural vocational education programs. Additional conferences should be scheduled for further refinement of the models developed. There would be some merit in the planning of these institutes around regional and/or vocational disciplinary interests. Maximum effort should be expended to assure the widest possible dissemination of the developments of this institute.

A team approach is recommended as a means of impacting these findings on rural vocational education planning at the local, state, and national levels of responsibility. Participants are urged to honor their statements of intent and to combine these plans with the findings of other such programs designed to serve the ever changing vocational education needs of rural America.

EASOM, JAMES L., SR., SHILL, JAMES F., STEED, ALLEN T. Mississippi's State Advisory Council's Evaluation Report on Vocational Education, Fiscal Year 1970. Staff Study. 52 p. Research Coordinating Unit, Mississippi State University, State College.

Purpose.-- This evaluation was attempted to appraise, in part, the vocational education program of Mississippi, Fiscal Year 1970.

Method.-- Evaluative data were collected, analyzed, and summarized for the purpose of focusing upon the following five areas: (1) The state goals and priorities set forth in the State Plan; (2) The human resources development programs of the state; (3) The effects of the Vocational Education Amendments of 1960 upon the state in Fiscal Year 1970; (4) The people and their needs; and (5) the identification of employment opportunities within the state and the vocational services required.

Findings.-- It was noted that vocational education placed special emphasis upon training the disadvantaged, handicapped, unemployed, and underemployed in the state as well as regular students. There also was special emphasis placed upon reaching the dropouts who had left school and providing a program to prevent students from becoming dropouts. There was a move to provide vocational education in area vocational schools to students in all parts of the state, but particularly in depressed counties, on both secondary and post-secondary levels.

Some weaknesses also exist. One weakness of prime concern was the ladk of sufficient funds to provide adequate facilities, equipment, and instructional personnel to most effectively operate the vocational education programs. There was also a need for more valid and reliable data concerning vocational education and manpower needs to facilitate the planning and implementation of new programs. There was a definite need for continued emphasis to be placed upon research in vocational education to provide new concepts and to evaluate the efficiency of those presently in operation.

FARRAR, ANDREW. A Study of Certain Conditions and Educational Needs of a Group of Flue-Cured Tobacco Farmers in Pittsylvania County. Thesis M.S., 1971, Virginia State College. 40 p. Library, Virginia State College, Petersburg.

Purpose.-- To determine certain characteristics of practices which farmers employed in the production of high quality tobacco.

Method.-- A questionnaire was developed and copies were delivered to five high schools where agricultural education was taught. Ninety farmers were then contacted by sixteen teachers and responses were received from seventy-two of the ninety farmers.

Findings.-- The sizes of the farms were adequate.

Mechanization was on the increase.

The educational achievements of the respondents were adequate.

The employed approved practices were usually of the traditional type.

The farmers, in general, realized the need for additional education.

The farmer's opinions were divided as to the merits of the tobacco referendum.

FERGUSON, JOE FRANK. Effects of the Grade and Yield System on Pork Quality and Marketing Practices. Report M.S., 1971, Oklahoma State University. 39 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The primary purpose of this study was to determine if the quality of swine slaughtered in north central Oklahoma and selected counties in southern Kansas has improved from 1968 through 1970.

Method.-- An effort was made to determine the increased returns from marketing meat type swine and to determine marketing patterns established by producers using this system of swine marketing.

Data were obtained from the Mauer-Neuer Meat Packing Plant, Arkansas City, Kansas, on 1,225,497 market swine regarding carcass grades, live weight, dressing percentages and the carcass grade value.

Findings.-- (1) Pork quality has improved. (2) A lower percentage of market swine resulting in low quality pork is being marketed each year. (3) In general, swine producers are stressing management factors that enable them to produce higher quality pork. (4) The grade and yield offers an incentive in terms of gross income for swine producers to market higher quality pork. (5) Swine marketing trends are becoming more uniform.

FORREST, DAVID PARKER. Occupational Status of Vocational Agriculture Teachers in Tennessee. Thesis M.S., 1969, University of Tennessee. 89 p. Library, University of Tennessee, Knoxville.

Purpose.-- To determine the occupational status of teachers of vocational agriculture in Tennessee.

Method.-- Assistance was received from the State Department of Education in supplying names of present and former teachers of vocational agriculture. Questionnaires were developed by the researchers and previewed by the agricultural education staff and representatives of the Tennessee Vocational Agriculture Teachers' Association. Questionnaires developed specifically for the intended group were mailed to the following persons: (1) All 265 of the present teachers. (2) Fifty former teachers who had not taught during the past three years. (3) Fifteen teachers from each of the three geographic regions selected at random from the group of those presently teaching.

Approximately 70 per cent of the persons from all groups responded to the questionnaires.

Findings.-- (1) All vocational agriculture teachers in Tennessee had earned a Bachelor's degree and 30 per cent had a Master's. (2) More of the degrees had been earned at The University of Tennessee than from any other institution. (3) Teachers with Bachelor's degrees had an average of 13.75 years of teaching experience compared to 21.43 for a Master's. The average number of years of experience for former teachers was 15.47. (4) The total annual salary averaged $7,339 for teachers with a Bachelor's degree and $8,390 for those with a Master's. (5) Teachers with Bachelor's degrees received an average supplement of $665 per year and those with Master's $1,145. (6) The teachers reported spending approximately 50 hours per week on professional duties.

About 48 per cent of this was spent in actually teaching classes. (7) Higher salaries in other occupations, personal advancement other than financial, and too long a working day were given as the main reasons for leaving the vocational agriculture teaching profession.

GARDNER, EDWARD L. A Study of the Interests of a Group of Students in Nansemond County Concerning Selected Aspects of the Program of Agricultural Education. Thesis M.S., 1971, Virginia State College. 45 p. Library, Virginia State College, Petersburg, Virginia.

Purpose.-- To determine the character of selected students in agricultural education in terms of their interest and their desires for training as related to program improvement in Nansemond County.

Method.-- From the Planning guide for Agricultural Education, a list of the most pertinent factors for study was developed and fashioned into a questionnaire. The questionnaire was administered by the teachers of the three secondary schools in Nansemond County.

Findings.-- The interests of the students were rather definitely related to the order in which they desired to have specific units taught.

The respondents expressed the need for increased knowledge of employment opportunities.

The development of skills in welding and electricity were expressed as needs by the students.

Ornamental horticulture appealed to many of the individuals.

Certain students, in spite of the mass migration away from the farm, expressed interest in the production phase of agriculture.

The benefits of leadership training were seriously questioned by the respondents.

GILLIAM, CONRAD M. A Study of Some of the Influences in the Shift from a Dual to a Unitary System of Education in Agricultural Education in Eastern Virginia. Thesis M.S., 1971, Virginia State College. 43 p. Library, Virginia State College, Petersburg.

Purpose.-- The basic problem was to study the characteristics of programs of Agricultural Education in Eastern Virginia after the shift from a dual to a unitary system of education.

Method.-- A questionnaire and an explanatory letter were mailed to fifty-two teachers, and forty-three replies were received. Information was also secured from interviews with local school administrators, teacher educators, and supervisory personnel on the local, area and state levels.

Findings.-- The large majority of teachers were employed on the 12 month basis.

Approximately one-half of the respondents felt that current programs of agricultural education were meeting the needs of the students.

In terms of the average number of years of teaching experience, the blacks outranked the non-blacks.

Only five black teachers were included in the 16 teachers who were hired during the past five years.

Nearly all of the previously black senior high schools have been converted to junior high schools.

Almost equal numbers of blacks and non-blacks who graduated pursued advanced training.

Since 1965 the number of black teachers decreased from thirty to twenty.

While a vast majority of the white teachers were retained in the senior high schools, many of the black teachers were transferred to the junior high schools.

GRANBERRY, ROYCE L. A Comparison of Selected Characteristics of Students Enrolled in Terminal and Transfer Curricula in Agriculture in Four Texas Junior Colleges. Dissertation Ed.D., 1971. Oklahoma State University. 134 p. Library, Oklahoma State University, Stillwater.

Purpose.-- In this study, an effort was made to compare selected characteristics of students enrolled in terminal and transfer curricula in agriculture in four Texas junior colleges during the 1970-71 school year.

Method.-- The junior college settings of the study were selected because they offered terminal curricula in agriculture consisting of a number of courses which were not designed for transfer to a four-year college or university. A total of 159 terminal students and 197 transfer students were administered a questionnaire which had been designed to obtain the bulk of the data from the students. Selected measures of scholastic ability were supplied by the admissions offices of the four junior colleges.

Findings.-- The results of this study indicated no significant differences between terminal and transfer students for selected socio-economic characteristics such as age, race, sex, marital status, family size, educational attainment and occupational classification of the fathers, population of the area where the students were reared, and the source and level of family income. Educational backgrounds of the two groups did not differ -- as was indicated by the sizes of high schools from which the students were graduated, extent of participation in high school clubs and activities, and awards or recognition received. Both transfer and terminal students indicated the expectation of receiving satisfaction in life from the same activities. However, the educational plans of the students after junior college clearly indicated different purposes in college attendance. Students enrolled in terminal and transfer curricula in agriculture were not different in the extent of work training they received in high school, the types of jobs at which they had worked, or employment status. Scholastic ability measures indicated no significant differences in the two groups for this characteristic.

GREGG, FRED B. A National Look at Important Curricular Aspects of Agricultural Education. Thesis M.S., 1971, University of Tennessee. 64 p. Library, University of Tennessee, Knoxville.

Purpose.-- To determine the situation on a national basis relative to important curricular aspects of agricultural education on the secondary level.

Method.-- The data were collected through a mailed questionnaire from persons at every state department of education responsible for agricultural education. A respondence of 76 per cent was received.

Findings.-- (1) Production agriculture, even though declining in curricular emphasis, composed the single largest element of the curriculum, but subject areas such as horticulture, agribusiness, farm power and machinery, forestry, conservation and natural resources were receiving increased emphasis. (2) Cooperative work experience programs were also receiving more emphasis. (3) Emphasis during the 70's was expected to be heavily directed toward subject matter areas which have implications of ecological importance. (4) Eighty-four per cent of the respondents indicated that special provisions were being provided for the disadvantaged but little substantiative evidence of significant efforts was found. (5) Sixty per cent of the respondents indicated that a core curriculum was provided for local agricultural education programs but little effort was being expended in developing common cores for agricultural education and one or more other vocational services. (6) Agricultural programs were found to be largely organized around one hour classes granting one unit of credit. The curricula usually consisted of two years of basic agriculture followed by one or more specialized courses. (7) Granting of specific credit for cooperative work experience programs was found to be a common practice.

GRIFFITH, HENRY VIETH. Formulation of Behavioral Objectives for Training in Selected Ornamental Horticulture Jobs. Dissertation Ed.D., 1971, Oklahoma State University. 125 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The objective of this study was to formulate behavioral objectives for training certain workers in ornamental horticulture occupations.

Method.-- By identifying and analyzing tasks in 16 jobs distributed among wholesale nurseries, retail nurseries, garden centers and landscaping firms in Oklahoma, a task analysis was completed which revealed the job competencies, stated in behavior terms, required of skilled workers in three selected occupational areas. The competencies thus derived were verified through a survey of a sample of the managers of 60 out of approximately 150 of the firms in three selected areas. The competencies, statistically validated, were used directly to formulate a bank of behavioral objectives which could be used for organizing a curriculum for training certain workers in ornamental horticulture occupations.

Findings.-- Task analysis through the use of observation-interview method and stating derived competencies in behavior terms provides sound skill statements with which to formulate clear behavioral objective statements. Competencies of jobs in the occupational areas studied grouped readily into seven organizing areas: plant production, landscape maintenance, sales, management, record keeping, equipment operation and equipment maintenance. This indicates a possible organizing structure on which to build curriculum composed of related behavioral objectives. The cluster training potential of each behavioral objective was revealed by the industry concurrance survey defining numerous skill areas suitable for group instruction, while others were clearly more suited to individualized instruction, and a few showed no significance to the work of the firms studied.

HARRIS, LEON N. The Development of a Two-year Curriculum in Ornamental Horticulture at the John Yeates High School. Thesis M.S., 1971, Virginia State College. 53 p. Library, Virginia State College, Petersburg.

Purpose.-- To develop an Ornamental Horticulture Curriculum on the bases of the interests of the students and the opportunities for employment.

Method.-- A survey was conducted and the writer interviewed prospective employers and employees. Information was secured concerning the kinds of skills which prospective workers should possess and the extent to which opportunities for employment would exist.

Findings.-- One hundred seventy-five students expressed interest in floriculture.

The job of the deliveryman appeared to be the most appealing to the students.

Each of the businesses contacted anticipated increased employment opportunities.

Job descriptions were secured for thirteen areas of employment.

Very few of the respondents expressed interest in the highly technical phases.

The facilities for providing the necessary training in the writer's high school were minimal in nature.

The two-year program will not necessarily provide adequate job entry understandings and skills.

HENEGAR, SILLES RAY. Agricultural Education as Perceived by East Tennessee School Administrators. Thesis M.S., 1969, University of Tennessee, Knoxville.

Purpose.-- To determine the opinions of East Tennessee school administrators regarding the present programs of vocational agriculture, and their opinions regarding suggested ways of making the programs more useful.

Method.-- The data were collected through a mailed questionnaire to every school administrator in East Tennessee who had a vocational agriculture program in the school system. Eighty-two per cent of the 108 administrators responded to the survey. The questionnaire was developed by the researcher but was pre-tested on a sample of administrators and college professors.

Findings.-- It was the consensus of opinion of the administrators that: (1) The training in vocational agriculture contributed to the growth of the national economy. (2) A new name, "Agricultural Education," should replace the present one, "Vocational Agriculture." (3) A statewide core curriculum should be used but adapted by the teacher and advisory council. (4) The first two years of vocational agriculture should be general in content but followed with more specialized courses with titles indicative of course content. (5) Provisions should be made to extend the use of multiple teacher departments, land laboratories and practical experiences for students with supervision from the teacher. (6) Units which consist of jobs should be taught during the appropriate season but basing the instruction upon selected objectives of the students. (7) The vocational agriculture teachers were doing a good job of public relations. (8) The FFA was not overemphasized in relation to the instructional program. (9) Professional growth should be acquired through graduate study, inservice education and reading.

KIESLING, LEEROY W. The Relationship Between the Vocational Agriculture Teacher's Attitude Toward Coordinating and Advising the Young Farmer Organization and His Attitude Toward His Other Duties. Dissertation, Ed.D., 1971, Oklahoma State University. 82 p. Library, Oklahoma State University, Stillwater.

Purpose.-- This study was an attempt to determine the relationship between the vocational agriculture teacher's attitude toward coordinating and advising the young farmer organization and his attitude toward ten of his other duties and to determine the relationship between his attitude and self-evaluation of success for the duties.

Method.-- The attitudes were determined by use of the Semantic Differential; whereas, the self-evaluation of success was obtained by use of a seven-point Likert scale. These instruments were administered at regularly scheduled P.I. (Professional Improvement) meetings in each of the five supervisory districts in the state of Oklahoma. Data collected came from 305 of the 387 vocational agriculture teachers, which represented 78.81 per cent of the population.

Findings.-- The study revealed that the attitudes toward coordinating and advising the young farmer organization were moderately favorable. The teachers considered the duty as moderately good, active and passive for the evaluative, activity and potency factors obtained from the Semantic Differential. The duty tied for last on self-evaluation of success. On a rank order of priorities of duties, coordinating and advising the young farmer organization ranked ninth, based on attitude and tenth, based on self-evaluation of success scores.

A significant relationship was indicated between coordinating and advising the young farmer organization and the other duties of the vocational agriculture teacher by multiple correlations based on Semantic Differential attitude scores. Significant relationships were indicated between coordinating and advising the young farmer organization and the other duties based on simple correlations between that duty and the other duties. The relationship between coordinating and advising the young farmer organization and the other duties, based on self-evaluation of success scores, was significant as indicated by multiple correlations. The relationships between this duty and the other duties were significant in approximately half of the duties based on simple correlation of self-evaluation scores. All relationships between attitude and self-evaluation of success scores were significant, except advising the FFA.

LAMBERT, RICHARD H. Educational Practices and Teaching Techniques Related to Disadvantaged Vocational Students. Thesis M.S., 1971, University of Tennessee. 123 p. Library, University of Tennessee, Knoxville.

Purpose.-- To determine what educational practices and teaching techniques would be identified as significantly different when comparisons were made between teachers of programs for disadvantaged students and teachers in programs for regular students.

Method.-- Data were obtained from 120 secondary vocational teachers evenly divided between teachers in programs for disadvantaged students and teachers in regular vocational programs. Comparisons were made between the two groups of teachers and other related characteristics relative to their use of educational practices and teaching techniques. The data were tested by analysis of variance and Duncan's multiple range test.

Findings.-- (1) Teachers of disadvantaged students considered the following educational practices and teaching techniques less important than regular vocational teachers: (a) work with students in out-of-school activities, (b) use the school norm in assigning grades, (c) require good discipline in the classroom, (d) use role playing, (e) ask many factual questions, (f) use chalkboard and overhead projector, (g) review tests after grading, (h) use students' experiences in class discussion, and (i) require a student notebook. (2) Teachers of disadvantaged students considered involving the students in setting the rules and regulations for the class more important than teachers of regular students. (3) Teachers who had taken courses relative to teaching the disadvantaged considered the following practices and techniques more important than teachers who had not taken these courses: (a) counsel with students, (b) plan a course of study in consultation with other teachers, (c) develop teaching materials supplemental to texts or other references, (d) correlate mathematics, English and science with vocational subjects. (4) Teachers who had been enrolled in courses designed specifically for teaching the disadvantaged responded differently to the use of educational practices and teaching techniques than teachers who had attended similar non-credit seminars. (5) Teachers who had taught disadvantaged students for more than one year responded differently to using specific techniques and practices than the less experienced teachers. (6) There were more differences between the service areas in responses to the use of specific practices and techniques in teaching than between teachers of disadvantaged and regular vocational students.

MARTIN, ROBERT R. Emerging Concepts of Teacher Education in Agriculture. Ph.D. Dissertation, 1971. Louisiana State University.234 p. Department of Agricultural Education, Louisiana State University, Baton Rouge.

Purpose.-- The primary purpose of this study was to determine emerging concepts of teacher education in agriculture. A knowledge of the role concepts held by individuals who have administrative and operational responsibilities in over-all program function should prove valuable in determining needed adjustments in current undergraduate training programs for prospective graduates in agricultural education. Therefore, an attempt was made to rank current teacher education functions in agriculture as perceived by five professional education groups: teacher educators, vocational agricultural teachers, supervisors, principals and superintendents.

Method.-- The descriptive survey method of research utilizing the questionnaire technique, was used in this study. Questionnaires consisting of 11 role items and 115 activities were mailed to 48 teacher educators, 96 teachers of vocational agriculture, 96 high school principals, 96 public school superintendents, 46 state supervisors of vocational agriculture and 68 area or district supervisors of vocational agriculture.

The questionnaire was first submitted to a group of 22 persons for a critical review of the items and activities. All but one jury member responded.

An evaluation was obtained for each item from each participating group by calculating the means from the responses to the activities listed under each item. The analysis of variance procedure was used as a test of significient differences among these groups. Where differences were noted, the responses of the teacher educators were compared with those of the other four groups and the responses of the vocational agricultural teachers were compared with those of the remaining three groups, teacher educators excluded, to see if they held different concepts from the supervisors and administrators of public schools. A third comparison gave the principal's evaluations with respect to those of the supervisors and superintendents, while the fourth compared the average responses of the supervisors and the superintendents. The F-test was used in determining the degree of differences that existed. Finally, the null hypothesis was used against each test and was accepted or rejected at the .05 level of confidence.

Findings.-- Significant differences were found to exist among the responses to 53 of the 115 role activities selected for this study. Four comparisons were made of these 53 activities to determine the sources of differences. Upon comparison, it was found that the teacher educators differed with the other groups on 42 activities, while the agricultural teachers differed with

the other groups on 42 activities, while the agricultural teachers differed with the remaining three groups on only six activities. The principals' responses were significantly different from those of the supervisors and superintendents with respect to 14 activites, and the supervisors and superintendents were at odds on 16 of the 53 activities.

None of the eleven role items used in this study were rated Very Important by an average of all responses of the participants. Six role items were perceived to be Important by the average of the five groups of educators. These were: Technical Agriculture; Professional Education; Program Flexibility; Student Traching and Professional Internship; Job Placement; and Organizations. Five role items were assigned average ratings of Little Importance. These were: Selection and Recruitment of Candidates; General Education; State Programs and Certification; Cooperative Personnel and Agencies; and Assessment of First Year Teaching. No role item was determined to have No Value by the participating groups.

McMINN, J. HAROLD AND SHILL, JAMES F. Career-Centered Curriculum for Vocational Complexes in Mississippi. Staff Study. Mississippi State University. 8 p. Research Coordinating Unit, Mississippi State University, State College.

Purpose.-- The major purpose was to familiarize educational personnel with the career-centered concept as being implemented in an exemplary program in Jones County School System.

Method.-- An extensive review of related material was used to develop the content for the publication.

Findings.-- The career-centered concept views the total school experiences of students as preparation for life, with earning a living a prime focus. The concept views people as needing three types of skills to be successful in life. Namely: (1) sociological skills in order to adjust to and participate in changes in the local community, state, nation, and world; (2) psychological skills to enable the individual to achieve self-awareness and develop desirable personal characteristics; and (3) occupational skills which afford the individual an opportunity to earn a living and which serve as a base for continuous growth and advancement in a career.

McMULLEN, STANLEY B. A Study of Certain Characteristics of a Group of Enrollees in Agricultural Education in Gloucester County, Virginia. Thesis, M.S., 1971, Virginia State College. 33 p. Library, Virginia State College, Petersburg.

Purpose.-- To ascertain the occupational interests of 80 high school students and to determine the related opportunities for employment. In addition, an effort was made to design a meaningful program of agricultural education.

Method.-- A questionnaire was designed by the writer and approved by the homeroom teachers and the guidance counselor. The questionnaire was completed by each of the 80 students during a regular 45-minute homeroom period. The writer supplemented the replies of the respondents by a review of the cumulative record cards.

Findings.-- Grades earned by the students in agricultural education and industrial arts were higher than the grades which the group earned in mathematics and general science.

The students, in general, desired to enter occupations which were closely related to the areas of the father's employment.

Very few of the fathers were engaged in jobs which were listed in the areas of business, scientific, personal-social, and out-of-doors work.

Absenteeism was very high among the respondents.

MITCHELL, JESSE B. Employment Opportunities and Educational Needs in Off-Farm Agri-Business Occupations in Oklahoma. Dissertation, Ed.D., 1971, Oklahoma State University. 194 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The primary purpose was to supply manpower information related to off-farm agri-business occupations which may be used for training program expansion or redirecting existing programs.

Method.-- It was important in the study to know the immediate, as well as the projected occupational needs, and to ascertain the nature and extent of off-farm agri-business occupational opportunities. A one-, two- and three-year projection of the available and needed off-farm agri-business occupations in Oklahoma were provided for decision making. The data were collected in all counties in the State of Oklahoma by personal interview. The vocational agriculture teachers in each county collected the data by the use of a questionnaire. Descriptive statistical methods were used in analyzing the data.

Findings.-- A total of 218 occupational titles were identified in 2,542 agencies, businesses or industries in Oklahoma with 23,306 employees. There were 20 selected types of organizations. Off-farm agri-business occupations exist in each county and district. There were 165 additional employees needed. The annual replacements were 502, and 2,599 new jobs were expected in the next three years.

The high school educational level was desired by 51 per cent of the employers for most occupational titles. The majority of employers would hire 18-year olds if qualified. Thirty-five per cent of the employers were employing high school students on a part-time basis, and two thirds of the employers were willing to employ high school students in a training capacity for three or more hours per day. Only 54 per cent of the employers were familiar with the cooperative part-time education program in vocational agriculture.

MOODY, BOYD O. An Annotated Bibliography of Selected Articles Published in Agricultural Education Magazines on Subjects Dealing with Methods, Techniques, and Procedures for Teaching Vocational Agriculture in the Eleven-year Period, June, 1959 to June, 1970. Thesis M.S., 1971, Virginia State College. 40 p. Library, Virginia State College, Petersburg.

Purpose.-- To provide a ready source of reference for current and prospective teachers of agricultural education in selected areas of the instructional program.

Method.-- Literature pertaining to the problem was secured and reviewed. The writer was able to classify the materials under five major headings, namely; teaching high school students, teaching out-of-school groups, agricultural mechanics, teaching the disadvantaged, and planning supervision, administration and evaluation.

Findings.-- The materials strongly suggested the need for a closer bond between classroom teaching and the problems of students.

Guidance was viewed as a primary responsibility of the teacher.

Instruction must be extended beyond the narrow confines of the classroom.

Gradual adoption of team teaching was in evidence.

The literature annotated emphasized the need for continued work with out-of-school groups.

MOORE, EDDIE A. A Study of Certain Conditions and Situations Related to a Group of Likely Enrollees In a Program of Agricultural Education for the Disadvantaged in Cumberland County. Thesis M.S., 1971, Virginia State College. 53 p. Library, Virginia State College, Petersburg.

Purpose.-- To become familiar with the characteristics of a group of disadvantaged students and to study the employment qualifications of agriculturally trained workers in the school's service area.

Method.-- The writer contacted many agencies and individuals who were primarily concerned with the problems of the disadvantaged. The information secured suggested the items which were included in the questionnaire. High school principals, guidance counselors and business representatives were asked to complete the questionnaire. Data were obtained concerning the characteristics of the likely enrollees in a program for the disadvantaged and the nature of current and future employment opportunities.

Findings.-- The average I.Q. for the five groups studied varied from seventy-six to one hundred sixteen.

Higher I.Q.'s were associated with the lower age groups.

The average education of the heads of households ranged from five years to ten years.

Drop-outs for the current year had average I.Q.'s of seventy; with ages that averaged sixteen years.

Likely enrollees in the agricultural education program for the disadvantaged were approximately two years older than a comparable group of academically designated students.

The I.Q.'s of the academically designated students, on an average, exceeded the disadvantaged students by twenty-eight.

Seven businesses expressed willingness to employ the trained disadvantaged.

Each of the businesses listed the successful completion of a high school education as a prerequisite for job entry.

Employment opportunities either existed or will exist in fourteen agriculturally oriented jobs.

MOSS, JERRY RALPH. The Opinions of 4-H Club Members, Adult Leaders, Parents, and Extension Agents Concerning the Benefits of Competitive Activities in Five Northwest Arkansas Counties. Thesis M.S., 1971, Oklahoma State University. 57 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of the study was to determine and compare the opinions of 4-H members, 4-H parents, 4-H leaders, and extension agents regarding the benefits of competitive activities in 4-H club work.

Method.-- Data were obtained by administering a questionnaire to a total of 665 persons including 4-H members, adult 4-H leaders, 4-H parents, and extension agents currently enrolled or directly working with the 4-H program in 1970, in five northwest Arkansas counties. Responses were received from 330 persons. Each group of people in the study was asked to indicate their degree of agreement to a group of statements concerning 4-H competitive activities. Comparisons of the responses were made in the categories of benefits in general, benefits in relation to school work and benefits in relation to project work.

Findings.-- The majority of all four groups responding agreed that competitive activities do provide benefits to all 4-H members, do have an educational value for both urban and rural youth, do much to encourage individual effort on the part of club members, do not cause jealousy or friction, and do not take too much time on the part of 4-H members to prepare for contests. Also, competitive activities do encourage younger members to take part in new projects, provide a challenge for 4-H members, do not cause 4-H members to be discouraged and quit 4-H if they place low in a contest, do encourage sportsmanship, self-confidence, leadership, and citizenship through competitive activities, and are beneficial to 4-H members in their school work.

PALMER, CHARLES O. An Appraisal of the Teaching Materials for Vocational Agriculture I Developed by the Teaching Materials Center at Texas A & M University. Dissertation Ph.D., 1971. Texas A & M University. 199 p. Library, Texas A & M University, College Station.

Purpose.-- The purpose of this research was to appraise the teaching materials developed by the Teaching Materials Center at Texas A & M University for Vocational Agriculture I in Texas in order to determine if a need existed for possible revision of the materials developed and to establish criteria on which to base the development of materials in the future. The objectives were to determine the level at which teachers would rate the quality of various materials developed, and to determine if selected factors (tenure, class size, and Supervisory Area of State) were associated with ratings by teachers.

Method.-- A questionnaire was used to obtain teachers' opinions about filing, ratings of quality, and suggestions for improvement of the materials. Data were analyzed by the product moment correlation. The three variables in the study were tenure, class size and Supervisory Area of State.

Findings.-- In general the instructional materials developed by the Teaching Materials Center were considered to be of high quality by teachers. Tenure and class size had little influence upon teachers' opinions of the quality of the materials, however, Supervisory Area had a great deal of influence upon teachers' opinions.

In the opinion of the majority of teachers, placing in notebooks was the best method for filing the printed materials while filing in folders was the best method for filing the transparencies. It was found that the Agdex filing system was being used by less than 25 per cent of the teachers.

The use of advisory committees for determining the subject matter content to be included in instructional materials has a high level of utility for the production of quality materials.

PARKER, JOHN F. A Study of Certain Conditions Related to Field Trips for Adult Farmers in Agricultural Education. Thesis M.S., 1971, Virginia State College. 39 p. Library, Virginia State College, Petersburg.

Purpose.-- To determine the factors which influenced successful field trips and to develop a list of recommendations for use by teachers of agricultural education.

Method.-- The writer selected eighty-five departments, representing both black and white teachers. Seventy-three questionnaires were completed and returned. The information was related to fifteen areas which were related to field trips.

Findings.-- Visits to homes of the farmers who were actually farming represented the most frequent travel destinations.

Careful planning was reported by fifty teachers.

All-day field trips were sanctioned by forty-seven teachers.

Prior permission from the owner, and the presence and participation of the owner were considered essential features.

Use of private automobiles was often reported.

Fifty teachers said that the students personally financed their trips.

Being absent from home over night posed a real problem in as many as twenty-two departments.

Observation of related agricultural practices, acquisition of new information, and becoming familiar with the latest practices in agriculture were listed as the major purposes.

PARKER, MELVILLE G. and RICHARD A. BAKER. Development of A Scale to Measure Attitudes Toward Vocational Education. Staff Study, 1970, Occupational Research and Development Unit, Department of Vocational and Adult Education, Auburn University, Auburn, Alabama. 12 p.

Purpose:-- The project was an initial stage of an effort to develop more effective communications and cooperative relationships between vocational educators and persons in community and educational leadership positions. Knowledge of the direction (favorable and unfavorable) and extent of attitudes toward vocational education, and the degree to which they are consistently held within a particular group, were seen as being valuable in designing approaches to more effectively secure that group's cooperation in promoting vocational education.

Method.-- The equal-appearing intervals method of attitude scaling, usually associated with Thurstone, was used. Ninety statements ranging from extremely favorable to extremely unfavorable attitudes toward vocational education were judged by 141 university students. Nineteen of the judges were practicing teachers and educational administrators enrolled in an off-campus course. Judges assigned each statement to one of nine equal-appearing intervals.

Findings.-- The judging yielded enough statements with an acceptably small semi-interquartile range and even distribution across the nine intervals to make two twenty-item forms of the scale. Due to the wording of many of the attitude statements, both forms of the scale are most applicable to vocational education at the high school level. The use of university students as judges may be a detrimental influence upon the validity of the scale for general application.

PATTON, BOBBY GENE. A Study to Determine the Acceptance and Usefulness of the Basic Core Curriculum for Vocational Agriculture I in Oklahoma. Thesis M.S., 1971, Oklahoma State University. 50 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The major purpose of this study was to measure the usefulness of the Basic Core Curriculum for Vocational Agriculture I in order to determine the extent of use and to check the acceptance of this kind of approach in curriculum development.

Method.-- Data were collected by means of a mailed instrument designed to obtain teacher information and an attitude scale to determine and evaluate teacher attitudes toward the Basic Core Curriculum. Twenty teachers were selected at random from each of the five supervisory districts in Oklahoma. A total of 86 teachers responded to the instrument.

Findings.-- It was found that teachers generally held favorable agreement concerning the overall acceptance and usefulness of the Basic Core Curriculum. Additional findings were that supervisory districts and teaching experience do not vary a great deal in terms of the overall mean response about the acceptance of the Basic Core Curriculum for Vocational Agriculture I.

PROSISE, EVERETTE MARTIN. The Development of Behavioral Objectives For The Unit in Small Gasoline Engines as They Relate to Agricultural Mechanics Education. Thesis M.S., 1971, Virginia State College. 62 p. Library, Virginia State College, Petersburg, Virginia.

Purpose.-- The problem in this investigation was to develop meaningful behavioral objectives that could be used by prospective teachers of the agricultural machinery option when covering the area in small gasoline engines.

Method.-- In order to develop a basis to work from, the author sought through the review of literature to provide justification for the need of the Agricultural Machinery Service Option. The author then studied the Agricultural Machinery Option which had been set up in Virginia and evaluated the Option's objectives according to the criteria set up by Mager in his book, Preparing Instructional Objectives. In addition, information was gathered from several sources and from the author's experiences that enabled him to determine the competencies needed for work in the selected area of the Agricultural Machinery Option.

In order to develop the best possible basis for the establishment of behavioral objectives, interviews were also held with several persons who were engaged in selling and servicing small gasoline engines. These people indicated the nature of the work which the employees were expected to perform. In addition, the conditions under which the individuals were required to perform were reported.

Findings.-- There were twelve areas identified which should be studied during an instructional program in small gasoline engines. The competencies were reviewed and evaluated according to the need of the student. The essential knowledge and skills were ascertained under each area.

The functions of the engine were listed under each appropriate area. The functions of the various engine parts were described and presented under the appropriate areas.

ROBERSON, BOB E. Factors That Should Be Considered in Assigning Responsibilities in a Multiple-Teacher Department of Vocational Agriculture. Report M.S., 1971, Oklahoma State University. 52 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to determine what factors should be considered in a multiple-teacher department of vocational agriculture.

Method.-- This study included all the schools in Oklahoma which have two or more teachers of vocational agriculture for the school year 1970-71.

A questionnaire was developed to determine how existing departments assigned responsibilities. This questionnaire was sent to all vocational agriculture teachers in Oklahoma that teach in multiple-teacher departments. The results of this questionnaire were analyzed and compiled and an attempt made to determine the best procedures to consider in assigning responsibilities in a multiple-teacher department of vocational agriculture.

Findings.-- Listed in this study are the results of the survey that expressed the opinions of both the head teachers and other teachers in the department. The information compiled was a result of, in many instances, trial and error methods of operating a multiple-teacher department. The many years of experience of these teachers can be used to construct workable guidelines for operating a multiple-teacher department. It is hoped that this information can be used by these teachers and others who will be teaching in multiple-teacher departments in the future to better organize a more effective program. This information should help develop an understanding of the problems involved in multiple-teacher departments of vocational agriculture and serve as a tool to help solve them.

SCOGGINS, LELAND C. Causes for Dropouts in High Schools of Natchitoches Parish with Implications for a Vocationally Oriented Program. Ph.D. Dissertation, 1970. Louisiana State University. 124 p. Department of Agricultural Education, Louisiana State University, Baton Rouge.

Purpose.-- The primary purpose of this study was to determine the causes of high school dropouts in Natchitoches and to provide information that would assist in the development of broader vocational programs. Specific objectives were:

1. To ascertain the causes for students dropping out of school in grades 9 through 12.

2. To ascertain if the students were finding a solution to their needs through their high school curriculum.

3. To ascertain if the attitudes of the parents and/or guardians reflect on the attitudes and needs of the students.

4. To ascertain if teachers and administrators were displaying an interest in students who are potential dropouts.

5. To ascertain if the school would have more holding power if a greater selection of vocational or occupationally-oriented subjects were offered.

6. To determine the high school courses providing the most benefit to the dropouts in their present occupation.

7. To ascertain the association of IQ, academic achievement, and grade level attainment on the dropout problem.

8. To ascertain the association between the educational levels of parents and the dropouts as it relates to the dropout problem.

9. To ascertain the value of participation in extra-curricular activities to the dropout problem.

10. To ascertain the school's evaluation of reasons for students dropping out of school and to determine if there was a relationship between the reasons they give and those given by the dropouts.

Method.-- The Descriptive Survey Method, with the Mail Questionnaire Technique, personal interviews with local school personnel, and the parish visiting teacher, was used in this study. The 470 respondents (271 boys and 199 girls) represented approximately 17 per cent of the total high school enrollment of Natchitoches Parish Schools.

Statistical procedures employed were frequency and percentage distributions. Processed data were organized into tabular form for presentation and interpretation.

Findings.-- The largest percentage of the dropouts (36.37) lived in the city, and 35.76 per cent lived in rural areas but not on a farm. Farm families had the lowest number of dropouts. Families with four children tended to have the highest percentage of dropouts.

A typical dropout was a boy 17 years old, in the 10th grade and a girl 17 years old in the 11th grade. He left school for many reasons, but the major ones were dislike for school experiences because the schools were not meeting their needs, economic situation of the home, and personal problems. He had

average intelligence, but did not participate in extracurricular activities. He had been enrolled in a general curriculum in school and lived with one or both of his parents who had an average monthly income of $250 or less. The dropout appeared to be socially adjusted. He was unhappy with his present job, but could not secure employment in his first choice of jobs due to lack of special training.

The largest percentage of the girls listed "homemaker" as their occupation while the largest percentage of the boys listed "armed services and laborer" as their major occupation. There were 50 different jobs reported by the 165 respondents.

SHELL, LON R. Analyses of Noise in Selected Agricultural Mechanics Facilities. Dissertation, Ed.D, 1971, Oklahoma State University. 107 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to analyze the different noises found in four agricultural mechanics facilities selected as being representative of two basic types, those constructed predominantly of concrete (cinder) block and brick veneer and those predominantly of steel.

Method.-- Instructional program type conducted at each facility was identified (1) laboratory skill oriented or (2) project construction oriented.

Speech interference levels were found by measuring the sound levels with a Bruel & Khaer impulse precision sound level meter fitted with an octave filter set. The arithmetic averages of sound levels in decibles measured at 500 Hz, 1,000 Hz, and 2,000 Hz center band octabes were compared to table values to determine voice levels necessary at different distances adequate for communication while normal laboratory activities are ongoing. Equipment sound levels and time patterns were analyzed. Sound levels and durations measured in the respective facilities were compared to criteria established by the Walsh-Healey Act in determining hearing damage risk.

A questionnaire was administered to the students utilizing the respective facilities to determine (a) what noises annoy them most, (b) which of eight selected noise characteristics causes it to be annoying, (c) in which mental and physical activity are students engaged when annoyed most, and (d) the students perception of the aural environment with regard to the frequency of audio-communication interference caused by noises from normal class activities.

Findings.-- The most annoying sounds to students in the agricultural mechanics laboratory are those emitted from (a) pedestal and portable disc grinders and (b) chipping and hammering slag. The loudness of a noise is the most prominant sound characteristic which causes it to be annoying. Noises are most objectionable when the student is cogitating. The student does not feel that audio-communication is interfered with by noise in the typical agricultural mechanics laboratory. According to measured speech interference data, shouting to very loud voice levels are required for persons to effectively converse when six to 12 feet apart with normal activities ongoing. The larger, better acoustically treated facilities exhibited lower sound level readings although the amount of work taking place as indicated by percentages of machine use is more influential with regard to aural environment than material building is fabricated of, or instructional program type being utilized. There were no sound intensities produced in typical agricultural mechanics facilities that would cause permanent hearing loss to the student at durations he would be exposed.

SHORTER, GEORGE S. A Study of the Attitudes of a Group of Agricultural and Non-agricultural Students Toward Agriculture in Pittsylvania County. Thesis M. S., 1971, Virginia State College. 87 p. Library, Virginia State College, Petersburg.

Purpose.-- To ascertain the opinions of senior high school and junior high school students concerning selected phases of the program of agricultural education.

Method.-- Six teachers of agricultural education collaborated in administering a questionnaire which contained 29 major items and 180 sub-items to each of 300 students.

Findings.--The average age of the students enrolled in agriculture upon entering high school was one year greater than the non-agricultural education enrollees.

The majority of the respondents were farm reared.

Twenty-one families of the senior high school enrollees were farming on a full-time basis.

The students felt that farming was of average status within the communities.

The majority of the agricultural education enrollees felt that farming ranged from a fair to a good career while the non-agricultural enrollees felt that this career ranged from fair to very poor.

The agricultural education students favored either the four- or the five-year program.

Both groups of students believed that all students should have exposure in the program of agricultural education.

The students, in general, supported the idea of agricultural education for the disadvantaged students.

Young and adult farmer programs of agricultural education were assigned either good or fair ratings by the majority of the respondents.

Farming was estimated to range from average size to big business by approximately 80 per cent of the students.

The pattern of responses indicated that greater emphases should be placed on mechanics, introduction of new programs and/or addition of new personnel.

Two hundred thirty-four students felt that there was still a place for the small farmer.

SHULTZ, FRED ALFRED. Selected Aspects of Vocational Image as Perceived by a Public Categorized by Occupational Levels. Dissertation Ed.D., 1971, Oklahoma State University. Library, Oklahoma State University, Stillwater.

Purpose.--In this study, an effort was to determine the image of vocational education in Oklahoma as perceived by members of a public categorized by levels of employment, and to compare the image of vocational education perceived by persons comprising the respective categories in selected cities.

Method.--Six locations in Northern-Central Oklahoma were selected as sites from which to secure data for the study. In order for a city to be selected as a location for this study, it was required to have at least three of the following four programs in its secondary public school system: trade and industrial education, business and office education, vocational agricultural education, and distributive education. The public in each location consisted of twenty individuals -- four representatives of each of the following occupational categories: professional, technical, skilled, semiskilled, and unskilled. Data were collected by the interview method at each of the designated interview sites.

Findings.-- As a group those interviewed responded neutrally regarding the adequacy of vocational education offerings, alignment of vocational programs with needs of local industry, and information dissemination about opportunities available in vocational education. However, the public had a favorable perception toward vocational education in comparison with the rest of the educational system.

SMITH, CHARLES K. A Study of the Opinions of Military and Civilian Personnel Concerning the Role of Vocational Agricultural Education in the Secondary School. Thesis M.S., 1971, Virginia State College. 63 p. Library, Virginia State College, Petersburg.

Purpose.-- To secure the opinions of both military personnel and civilians concerning the program of agricultural education.

Method.-- The respondents were selected from the Defense Supply Center. The individuals reacted to the factors which were listed in the eight major areas of the questionnaire. The respondents represented a cross-section of the Commonwealth of Virginia and the United States.

Findings.-- The military personnel and the civilians did not, in general, feel that the farmers were well educated.

Approximately one-half of the respondents were of the opinion that farmers made a fair living.

Validity of farmers' opinions were sanctioned in about fifty per cent of the cases.

The significance of the small farmer was viewed as being of great importance.

According to the data, agricultural education could aid the hard-to-place students.

Agriculture was viewed as a means of preserving our ecological resources.

The respondents supported the idea of expanding the technical area of agricultural education.

Eighty-seven per cent of the respondents believed that a two-year certificate for the disadvantaged students would have merit.

A factor of major concern was the need for more effective procedures in the selection of enrolles.

Farming experience was listed as a minor factor in determining who should enroll in agricultural education.

The respondents supported the idea of continuous professional teacher growth.

In general, the opinions of the two groups of respondents did not vary materially.

STEED, ALLEN T. A Description and Self-Appraisal of Agricultural Programs for High School Students in Mississippi with Special Needs. Thesis M.S., 1970. Mississippi State University. 140 p. Library, Mississippi State University, State College.

Purpose.-- The purposes of this study were to: (1) provide a composite description of existing programs for special needs students; (2) provide a profile of teachers of special needs students; (3) provide information on students enrolled in special needs classes; (4) compare the self-appraisal of vocational education programs for special needs students between local school administrators and teachers of the special needs students; and (5) determine how well the program is accepted by special needs students, parents, and the public.

Method.-- A stratified sample of agriculture programs for special needs students in Mississippi was used for selecting eleven programs that had been operating for more than one year. Data were obtained via mailed questionnaires and personal interviews with teachers, administrators, and students.

Findings.-- Programs were generally centered around agricultural mechanics and the curriculum was described as skill oriented.

Teachers in the program were generally male, over 30 years of age, married, and had educational backgrounds varying from ninth grade level to bachelor's degrees, with the largest group having two years or less college credit. Teachers were also found to be generally from rural areas or small towns and from low-income families. Teachers generally had over six years of nonteaching work experience in related fields to which they were teaching. They also had two to five years of teaching experience.

Students were generally educationally deprived in the ninth to twelfth grades. Teachers generally appraised the major aspects of the overall programs higher than administrators. Enrolled students generally accepted the program, while other students showed some reluctance. Parents and the public were reluctant to accept it at first, but generally accepted it after a time.

STEED, ALLEN T. Vocational Education Programs for Special Needs Students in Secondary Schools of Mississippi. Report 37, Education Series 1, 1970. Mississippi State University. 55 p. Research Coordinating Unit for Vocational-Technical Education, Social Science Research Center, Mississippi State University, State College.

Purpose.-- The major purpose of the study was the description and self-appraisal of vocational education programs for special needs students in Mississippi secondary schools. It also was concerned with determining and analyzing specific strengths and weaknesses of such programs.

Method.-- A total of 55 teachers and 30 administrators from 30 Mississippi secondary schools were used in the study. Data for the study were obtained from three instruments developed for the study. These were as follows: (1) a questionnaire for teachers of special needs students; (2) a questionnaire for administrators of schools with special needs programs; and (3) an interview guide for teachers, administrators, and students involved in special needs programs.

Findings.-- Major aspects of the program that should be of future concern are as follows: (1) Most programs were not adequately equipped to maximize effectiveness. (2) Most programs were operated without any orientation program for students, parents, or public. (3) Some teachers of special needs students were reported as having no experience or education in the area they were teaching. (4) Other teachers in the school system were not directly involved with special needs program. (5) Administrators thought teachers should have additional training in methods and techniques of teaching. (6) Most administrators were viewed as not having sufficient understanding of the program, thus hampering motivation of students. (7) Most teachers did not use course outlines, or have specific objectives for their programs. (8) Most teachers were not familiar with any instructional materials designed for special needs programs.

THUR, JOHN WILLIAM. Opinions of Oklahoma Vocational Agriculture Teachers Toward Future Trends in Supervised Training. Report M.S., 1971, Oklahoma State University. 31 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to explore opinions and judgments held by Oklahoma Vocational Agriculture teachers regarding the nature and scope of emphasis which will in the future be placed upon selected types of supervised occupational training in vocational agriculture. A noncomitant purpose was to provide data as a basis for teacher education and state supervisory personnel to formulate and implement necessary policy and plans for revision of emphases to make programs of supervised occupational experience in agriculture more consistent with the needs of society.

Method.-- An opinionnaire was perfected and sent to ten randomly selected vocational agriculture instructors in each of the five vocational agriculture supervisory districts in Oklahoma.

Findings.-- (1) Teachers of vocational agriculture in Oklahoma placed major emphasis upon the agricultural production area of supervised training. (2) Oklahoma vocational agriculture teachers surveyed tended to place a great deal of importance in what is commonly referred to as the "traditional" program of vocational agriculture. (3) The supervised training areas of forestry and ornamental horticulture consistently received lower ratings than many other areas of supervised training. (4) Judgments of teachers tended to be more traditionally oriented, especially in the 30-39 year age groups as contrasted with both younger and older groups.

TREADWAY, JOSEPH R. An Occupational Study of Former Students of Vocational Agriculture of Hampton High School. Thesis M.S., 1969, University of Tennessee. 72 p. Library, University of Tennessee, Knoxville.

Purpose.-- (1) To determine occupational patterns of former students, (2) to determine factors that influenced former students to select occupations other than farming, (3) to determine the number of former students in farming or related occupations, and (4) to identify the most beneficial aspects of the vocational agriculture program.

Method.-- Data for the study were obtained through responses of 75 graduates in vocational agriculture from Hampton High School. The questionnaire was developed by the researcher with consultations from the staff in agricultural education. The mailed survey technique was used to collect the data.

Findings.-- (1) Nineteen per cent of the former students were engaged in some type of commercial farming, (2) eleven per cent were employed in related occupations, (3) thirty-nine per cent considered vocational agriculture helpful in employment, (4) fifty per cent of the respondents have had job patterns interrupted by military service, (5) preference for a different type of work and lack of land were the two main reasons given for not farming, (6) the agricultural mechanics jobs received the highest ranking in order of importance and being beneficial for employment, and (7) experiences obtained through the Future Farmers of America were considered beneficial for employment.

TURNER, CLINTON V. A Study of the Opinions of a Group of Secondary School Students Concerning Certain Phases of the Program of Agricultural Education. Thesis, M.S., 1971. Virginia State College, 38 p. Library, Virginia State College, Petersburg, Virginia.

Purpose.-- To secure the opinions of the students and to recommend ways by which teachers of agricultural education might improve their instructional programs.

Method.-- Three hundred students in Halifax County were asked to react to twenty-one major items which were contained in a questionnaire. The respondents were asked to indicate their choices by either checks or underscores.

Findings.-- The students enrolled in agricultural education at the average age of 13 years.

The majority of the enrollees volunteered for the program.

The students in agricultural mechanics felt that the development of skills was of greatest importance.

The respondents, in general, were farm reared.

The students supported the idea that only individuals with either agricultural or agriculturally related objectives should enroll in the program.

The five year program in agricultural education was recommended by the respondents for a select group.

The students felt that the school should share in the expenses of the leadership training program.

The individuals ranked performance on tests over practical application as a means for determining grades to be assigned.

The respondents were of the opinion that teacher visitations aid in problem solving.

UPDYKE, GARY WADE. The Attitude Changes of Student Teachers in Agricultural Education at New Mexico State University During Student Teaching. Thesis M.S., 1971, Oklahoma State University. Library, Oklahoma State University, Stillwater.

Purpose.-- The primary purpose of this study was to measure the change in attitude of student teachers of vocational agriculture toward FFA activities during their student teaching experience.

Method.-- The 32 student teachers of vocational agriculture at New Mexico State University during the spring of 1971 were used in this study. The student teachers were administered an attitude scale at the beginning of their student teaching as a pre-test. After the student teachers returned to campus they were administered the same attitude scale as a post-test. Their change in response from pre-test to post-test was considered their attitude change. The cooperating teachers were sent the same attitude scale after the student teachers had completed their student teaching experience. The student teachers' responses were compared to their cooperating teachers' responses and the amount and direction of change was derived. The teaching centers were categorized into three activity levels according to the amount the chapters participated in FFA activities. The three activity levels were considered separately.

At the same time the student teachers filled out the post-test they were given the Rokeach Dogmatism Scale. The dogmatism scores were compared to the number of changes in attitude to ascertain if there was any correlation.

Findings.-- One of the major findings was that there was a change in attitude during the student teaching experience and the cooperating teachers exerted an influence on the student teachers. It was also found that the attitudes changed more toward than away from the cooperating teachers' attitude patterns. There was a small difference in attitude change patterns between the treatment groups, however there appeared to be no definite patterning which could be attributed to the FFA activity levels of the different student teaching centers. It was also found there was no relationship between dogmatism and attitude change in this study.

UPSON, REGINALD T. A Study of Certain Conditions and Characteristics of a Group of Students Who Were Scheduled to Attend the Paul Camp Community College and Vocational Technical School at Franklin, Virginia. Thesis M.S., 1971, Virginia State College. 45 p. Library, Virginia State College, Petersburg.

Purpose.-- To secure pertinent data relative to the homes and families of a selected group of students with emphases on educational levels, interests, and aspirations and to recommend a post-high school program in agricultural education.

Method.-- A questionnaire was developed and pre-tested on 48 eighth and ninth grade students. The revised questionnaire was then administered to a group of 205 students who had been tentatively designated to attend the Community College and Vocational Technical School. Both agricultural education and agricultural mechanics students were studied.

Findings.-- Approximately three-fourths of the white students and almost one-half of the non-white students came from farm homes.

A high percentage of the parents did not graduate from high school.

Plans to pursue post-high school work were indicated by about two-thirds of the non-white students.

A limited number of the non-white students expressed an interest in agriculture at the post-high school level.

There was little positive relationship between the occupations of the parents and the occupational choices of the students.

Agricultural machinery service ranked highest in the list of post-high school training desires of the respondents.

Very limited interest was expressed for additional training in ornamental horticulture.

Welding ranked second from the point of view of the students' interests.

WALL, ROBERT A. A Study To Determine the Adequacy of the Fumes and Dust Disposal Equipment in the High School Agricultural Education Laboratories in Virginia, and to Test the Extent of Noise and the Adequacy of Lighting in these Laboratories.

Purpose.-- The purpose of this study was to evaluate occupational health hazards to the students and instructors involved with Agricultural Education laboratories operations.

Method.-- Twenty two schools in Virginia were selected for this study. The selection was based on departments with laboratories that would give the information desired; however, they were distributed over the state with two or more schools in each supervisory area.

Findings.-- One of the chief guidelines used in evaluating the potential health hazards involved was the comparison of the findings to the Threshold Limit Value or (TLV). The TLV refers to the airborne concentrations of substances and represents the daily time-weighted conditions to which workers may be repeatedly exposed for prolonged periods of time without adverse health effects. Threshold Limit Values are based on the best available information from industrial experience, from experimental human and animal studies, and when possible, from a combination of the three.

The results of wood dust concentration tests indicate that dust concentration is almost three times as high in the wood-working area where dust removing systems were not used as compared to the area where dust removing systems were used.

In the area of sound, decibles in excess of 85 were considered excessive and exceeded the TLV. The decibles around the radial arm saw, planer and table saw did exceed the Threshold Limit Value.

In the area of welding the Iron Oxide fumes did not exceed the TLV where exhaust systems were used; however, the individual exhaust ventilated booths were found to have lower iron oxide concentration.

Carbon Monoxide was found present only where a pick-up truck was allowed to run 30 minutes without an exhaust system and where a forge had a faulty flu. In both of these cases the TLV of 50 parts per million was exceeded.

The TLV for lead codmium and copper fumes was not exceeded but was found in sufficient concentration to recommend that an exhaust system be used.

The lighting in the agricultural buildings, stated in foot-candles, was far below the foot-candles recommended by the Illuminating Engineering Society. Recommendations are found in the study.

WELLS, JOE RICHARD. The Occupational Experiences of Former Students of Vocational Agriculture in the St. Francesville High School. Thesis M.S. 1970. Louisiana State University. 132 p. Department of Agricultural Education, Louisiana State University, Baton Rouge.

Purpose.-- The purpose of this study was to gain direction for adjusting the program of vocational agriculture in the St. Francisville High School based on the occupational experiences of 115 former students of vocational agriculture in the St. Francisville High School, 1950-1965.

Method.-- The normative-survey method of research was used, employing the questionnaire technique. Questionnaires were mailed to 115 former students. Ninety-two were returned with useable information.

Information was shown according to four occupational groupings: (1) those engaged in farming; (2) those engaged in occupations related to agriculture; (3) those in occupations not related to agriculture, and (4) those farming plus holding off farm jobs.

Findings.-- Findings show for the 92 subjects:

1. Twenty-two were farming; 15 were engaged in occupations related to agriculture; 54 were engaged in occupations not related to agriculture; and 15 of the 22 farmers hold off farm jobs.

2. Forty-five attended college 1 to 7 years; 11 attended 4 years or more.

3. Of those going to college 24 gave agriculture as their major study.

4. Among the 54 in occupations not related to agriculture 20 were in professional occupations.

5. In the group of 15 engaged in agriculturally oriented occupations, 10 were in professional work.

6. Among the 22 farming 13 were owner-operators.

7. Fifteen of 22 farmers held off-farm jobs.

Subjects rated the vocational agriculture program as follows:

1. Those in farming "Important" or "Slightly Important"; and those in non-related occupations as below the "Important" level.

The 15 farmers who held off-farm jobs rated vocational agriculture as to its value in their occupations: five indicated "Very Much" value; four "Some" value; one "Very Little" value; and five "No" value.

Eighty-four identified areas of vocational agriculture considered weak: the providing of occupational information; the subject of agricultural economics; farm mechanics instruction; and instruction in plant science.

WILLIAMS, HENRY L. Curricular Choices and Performance of Students in the College of Agriculture at Texas A & M University. Dissertation, Ph.D., 1970. Texas A & M University. 122 p. Library, Texas A & M University, College Station.

Purpose.-- The purpose of this study was to identify factors associated with curricular choice, stability in a curriculum, and performance of students.

Method.-- The sample was 401 senior, male students in the College of Agriculture at Texas A & M University. Data were obtained from student files, permanent records, and a questionnaire.

Findings.-- Forty-five per cent of the students changed curricula. Of the students who entered the University as freshmen, 67.8 per cent changed. Parents and vocational agriculture teachers influenced curricular choices most. Major experience factors which influenced curricular choice were work experience in agriculture, desire to farm or ranch, and desire to work with people in agriculture.

Stability in curricular choice was associated with size of high school, size of hometown, and persons influencing curricular choice. Stability was not associated with quarter rank in high school graduating class, activities conducted on the campus which influenced students to attend the University, or experience factors which influenced students to choose agriculture.

Reasons given by students for changing curricula were (1) I was not interested in the required courses in my previous major; (2) my original choice of major was not what I expected it to be; (3) I was not admitted to the College of Veterinary Medicine; (4) I was undecided about a major when I enrolled in the University; (5) teachers in my original major were not interested in me as an individual; and (6) I was impressed by a teacher in my present major.

The mean scholastic aptitude test scores for changers was higher than the mean for non-changers. Non-changers earned higher mean grade point ratios than changers. Changers improved their grade point ratios after changing.

WILLIAMSON, LEWIS E., Jr. A Study of Nonrenewals in the Virginia Farm Bureau Federation Among Fourteen Central Virginia Counties. Thesis M.S., 1971, Virginia State College. 56 p. Library, Virginia State College, Petersburg.

Purpose.-- The primary purpose was to determine why memberships were not renewed in the fourteen Central Virginia Counties and to summarize the backdoor loss problem.

Method.-- The writer developed a questionnaire which he believed contained the reasons why one did not renew his Farm Bureau membership and then mailed the questionnaire to the county secretaries, insurance advisors, and presidents for their comments and suggestions. The reactions of these individuals were incorporated into the final copy of the investigative instrument. Each delinquent member was then asked, by either the writer or by the volunteer leaders in the community to complete the questionnaire. Each of the questionnaires was completed and returned.

Findings.-- The total farm income increased in spite of a decline in the number of farms.

Membership in Farm Bureau had become available to non-farm people.

Two hundred families were classified as delinquent by Farm Bureau.

Sales of farms, changes in places of living, deaths and retirement were found to be the major causes of discontinued Farm Bureau membership.

Changes in insurance regulations and practices caused a large number of the families to sever their association with Farm Bureau.

The population, in general, increased; however, four counties reported decreases.

WOLFF, ROBERT L. An Analysis of Selected Aspects of the Agricultural Mechanics Program With Implications for Teacher Training in Louisiana. Ph.D. Dissertation, 1971. Louisiana State University. 219 p. Department of Agricultural Education, Louisiana State University, Baton Rouge.

Purpose.-- The primary purpose of this study was to analyze the agricultural mechanization experiences and education of vocational agriculture teachers. In addition to selected factors as they affected the development of the agricultural mechanics phase of the vocational agricultural program. A second and equally important purpose was to analyze the teachers' training and teaching in basic agricultural mechanics activities in relation to the expressed needs of students in agricultural mechanics.

Method.-- The Descriptive Method using the survey technique and a personal visit to collect data was the method of research used in this study. The instrument used to collect data concerning various aspects of the agricultural mechanics phase of the vocational agricultural program was developed through the review of literature, the experience of the writer, and a jury of experts. The aspects under investigation were: (1) the status of the agricultural mechanics phase of vocational agriculture, (2) the background and training of teachers, (3) factors that influence the development of the agricultural mechanics phase of the program, (4) the degree of instruction of various basic agricultural mechanics activities by teachers, (5) students needs in agricultural mechanics, and (6) the certainty of various junior and senior high school students in relation to their occupational objectives.

The population for this study included 25 vocational agricultural teachers from 22 selected high schools, and 70 junior and senior agricultural students. Twenty-five students aspired to

enter employment after completing high school, 25 aspired to continue their formal education, and 20 aspired to enter farming. An attempt was also made to select schools that were thought to be representative of each of the four supervisory areas of the state. Thus, the schools should be somewhat representative of vocational agricultural departments in the state.

Findings.-- The status of the agricultural mechanics phase of vocational agriculture in Louisiana is one of eminent variation among schools. Numerous two teacher departments are in existence. Teachers are redirecting programs to include training for off-farm agricultural employment; however, some do not have a clear perception of opportunities available.

Instructional time is devoted to classroom and laboratory type instruction, with the major emphasis being placed on a "shop type" program.

Numerous factors influence the development of the agricultural mechanics program. Some factors influence the program favorably; others have little or no influence. Local school policy and the teaching materials provided by the university are some of the most influential.

Vocational agricultural teachers have had a variety of agricultural mechanization experiences; however, few have work experience prior to teaching and most acquire only a minimal number of college credits in this area. Most of the teachers experiences have been in the area of agricultural construction and maintenance. Teachers' perception of educational experiences revealed that in-service education, work experience, and undergraduate preparation are among the most influential in the development of their instructional program. A high linear relationship was disclosed between the teaching and background training received in agricultural mechanics. However, a low linear relationship was found between the instruction provided and the expressed needs in agricultural mechanics by students. Significant differences were disclosed in expressed needs of agricultural mechanics among students in the major areas of Agricultural Power and Machinery and Soil and Water Management. A highly significant difference was found in the certainty of occupational planning among farm bound, employment bound, and students planning to continue their formal education; employment bound were least certain.

WRIGHT, BOBBY R. A Comparison of Effects of a Specially Designed Program in Vocational Agriculture upon Selected Characteristics of Advantaged and Disadvantaged Rural Students. Dissertation Ed.D., 1971, Oklahoma State University. 190 p. Library, Oklahoma State University, Stillwater.

Purpose.-- In this study an effort was made to measure and compare the attitudes toward education and gainful employment of "disadvantaged" and "advantaged" Vocational Agriculture I students following their exposure to an instructional program specially designed by the investigator.

Method.-- Three schools having a total enrollment of 72 Vocational Agriculture I students provided the settings and population for the study. Two sections of Vocational Agriculture I were offered in each school. Pre-arranged, intact classes were randomly assigned to experiment and control group. A pre-test was given to both groups (experimental and control) at the beginning of the study to measure attitudes toward education and gainful employment. The experimental group received instruction in the special instructional program while the control group received the traditional instruction. Agricultural Education student teachers from Oklahoma State University administered the instructional programs. The local cooperating teachers were responsible for teaching the material during the period in each semester that student teachers were not in the training centers. After 27 weeks, each group was administered the post-test, which was the same as the pre-test, and results of the treatment were determined.

Findings.-- Interpretation of results secured from statistical analysis of data revealed no significant change in the experimental group's attitudes toward education and preparing for gainful employment as a result of the special instructional program as compared to the control groups. However, observations by cooperating teachers, student teachers and the research led to the conclusion that the special program did result in visible differences in student motivation, self-confidence, participation in class, attitudes toward school, school attendance, and attitudes toward work.

YOUNG, FRED OLAN. Attitudes Toward Vocational Education of Professional Personnel in Secondary Schools Served by Selected Area Vocational-Technical Centers In Florida. Dissertation, Ed.D., 1971. University of Florida, Department of Agricultural Education, University of Florida, Gainesville.

Purpose.-- The purpose of this study was to measure and compare the attitudes toward vocational education of professional personnel in public high schools served by two types of area vocational-technical centers. The two types of area vocational-technical centers were: (1) the separate area vocational-technical centers administered by county school boards; and, (2) departments of junior colleges designated as area vocational-technical centers.

Method.-- The first hypothesis was that no significant difference existed between the attitudes of professional personnel (teachers, administrators, and counselors) toward vocational education, whether it was provided by the separate area vocational-technical centers administered by county school boards, or the departments of junior colleges designated as area vocational-technical centers.

The second hypothesis was that no significant difference existed among the attitudes of high school teachers, administrators, and counselors toward vocational education.

The third hypothesis was that male and female high school personnel did not differ in their attitudes toward vocational education.

The fourth hypothesis was that teachers in selected high school subject fields did not significantly differ in their attitudes toward vocational education.

The instrument used for measuring attitudes consisted of 30 attitude statements which comprised two attitude subscales identified by the use of factor analysis. Responses to the attitude statements were assigned weights in such a manner that the respondents who were most favorable toward vocational education would receive the highest scores.

The sample consisted of 371 public school teachers, administrators, and counselors employed in 20 high schools which were served by selected area vocational-technical centers in Florida. Vocational education teachers were not included in the sample.

The hypotheses were tested at the .05 level of significance by analysis of variance. Duncan's New Multiple Range Test was used to test differences between the mean attitude scores among which significant differences were detected by the analysis of variance.

Findings.-- The results indicated that the attitudes of the respondents were not significantly related to their sex or to the types of area vocational-technical centers which served the high schools. Administrators and counselors were found to be significantly more favorable toward vocational education than were teachers. A significant difference was found among teachers grouped according to the subject areas in which they had major teaching responsibilities. In general, all groups of respondents were favorable toward vocational education at the high school level as indicated by their mean attitude scores.

ZWEIACKER, LORAN LEO. A Comparison of the Scholastic Achievements of Transfer and Native Students in the College of Agriculture at Oklahoma State University. Thesis M.S., 1971. Oklahoma State University. 45 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to determine if there was a significant difference between native and transfer students based on their first two-year cumulative grade point average, grade point averages at OSU and their final cumulative average. Also, they were compared on their persistency to graduate, ability to graduate in four years, and if major area of study or the college transferred from made a difference in their performance.

Method.-- An analysis of variance was used when comparisons were made using grade point averages and the Chi Square technique was used in evaluating the persistency to graduate and the ability to graduate in four years.

Findings.-- The transfer students showed a significant advantage relative to their two-year cumulative average. The native students showed an advantage concerning work done at OSU, while no difference was observed concerning the final cumulative grade point average. Native students showed the greater persistency to graduate as well as the ability to graduate in four years. When transfers were compared by colleges transferred from, there was no significant difference. Major area of study showed a difference for all comparisons except the final.

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -*

EVANS, WAYLON. A Study to Determine Some Relevant Factors That Influence High School Students in Alabama to Become Teachers of Vocational Agriculture. Thesis, M.S., 1971. Alabama A & M University. 64 p. Library, Alabama A & M University, Normal.

Purpose.-- To help alleviate the problem of recruitment of an adequate supply of vocational agriculture teachers by providing information to help isolate factors that influence high school students to become teachers of vocational agriculture.

Method.-- The 400 vocational agriculture teachers in Alabama furnished names and addresses of their former students who had entered college in agricultural education and graduated, but not necessarily in agricultural education. From this list, a random sample was drawn consisting of 100 persons who were not teaching vocational agriculture and 100 persons who were teaching vocational agriculture to comprise the invited sample. From the accepting sample, 50 persons from each category were randomly selected to provide the data-producing sample.

*The following studies are out of alphabetical sequence because they were received after other studies were typed.

The data used in the study included influence of groups of persons; effects of socio-economic level, place of residence (rural farm, rural non-farm, and urban students), FFA participation, number of years of high school vocational agriculture completed, and supervisory visits by the local vocational agriculture teacher on students' choice to teach vocational agriculture. Six hypotheses were tested by chi square test.

Findings.-- The study can be summarized as follows: (1) vocational agriculture teachers were found to be more influential on students' choice to teach vocational agriculture than any other group of people used in the study; (2) no significant difference was found between the socio-economic level of these students who chose to teach vocational agriculture and those students who chose other occupations; (3) there was no significant difference between the place of residence of those students who chose to teach vocational agriculture and those students who chose other occupations; (4) the students who chose not to teach vocational agriculture had significantly higher participation in FFA than those students who chose to teach vocational agriculture; (5) no significant difference existed between the number of years of high school vocational agriculture completed for students who chose not to teach vocational agriculture and those chose to teach vocational agriculture and (6) the number of visits made by the local vocational agriculture teacher to the homes of students who chose to teach vocational agriculture was significantly higher than visits made to the homes of those students who chose not to teach vocational agriculture.

DAWSON, JAMES. Inservice Re-Training of Vocational Education Personnel to Amplify and Enhance Their Role in Working With Disadvantaged and Handicapped Learners. EPDA Project No. OEG-0-70-1956 (725), 1971. Alabama A & M University, Normal.

Purpose.-- To arm the teachers with expertise to better understand various problems of the disadvantaged and handicapped and to provide training and self-exploratory experience in terms of personal needs in teaching these individuals.

Method.-- A consortium was formed consisting of representatives from Alabama A & M University and Auburn University for the purpose of developing and coordinating the program activities. The participants for the program consisted of thirty vocational education teachers and supervisors who taught a significant number of disadvantaged and/or handicapped individuals. The teachers represented twelve vocational education teaching areas and came from twenty-one schools in various sections of Alabama. Twelve teaching consultants were employed to teach the twenty program content areas. The three-week institute was held from July 27 through August 14, 1970 on Alabama A & M University's campus. A nine-month institute follow-up program consisting of center visitations and two one-day workshops was developed and implemented.

Findings.-- The institute and follow-up program were evaluated by using pretest and posttest evaluative instruments, and institute and workshop rating scales.

The statistical analyses used to determine if there were significant differences and/or relationships between means and variables were: (1) Wilcoxon Matched-Pairs Sign-Ranks Test, (2) Mann-Whitney U Test, (3) Analysis of Variance, (4) Pearson Product Moment Correlation, (5) Correlated t-test, and (6) Spearman Rank Order Correlation.

The Wilcoxon Matched-Pairs Sign-Rank Test showed a significant difference at the .05 level, between what the teachers thought "would" indicate the degree of their knowledge of teaching the disadvantaged and handicapped from before to after the three-week institute.

The Mann-Whitney U Test showed a significant difference at the .01 level, between what the teachers thought "would" and "ought" to indicate the degree of their knowledge of teaching the disadvantaged and handicapped before participating in the institute. The Mann-Whitney U Test also showed a significant difference at the .05 level, between what the teachers thought "ought" and "would" indicate the degree of their knowledge of teaching the disadvantaged and handicapped after participating in the institute.

A Spearman Rank Order Correlation and a Correlated t-test showed a positive and significant correlation between what the teachers thought "would" indicate the degree of their knowledge of teaching the disadvantaged and handicapped from before to after the institute.

By Analysis of Variance, no significant difference was found between the participants' mean pre-test and post-test attitude test scores, as measured by a Semantic Differential Scale.

A Pearson Product Moment Correlation showed a positive and significant correlation between the participants' pre-test and post-test cognitive learning (multiple choice) test scores. A correlated t-test also showed a significant difference, at the .01 level, between the participants' mean test scores from before to after the institute.

The participants' evaluation of the institute and two workshops showed mean ratings high enough to conclude that they were of the opinion that the institute and workshops were highly successful in obtaining the stated objectives.

From results of statistical analyses and rating scales, it was concluded that the program (institute and follow-up study) was successful in obtaining the stated objectives.

HALLS, JAMES RALPH. A Study of Factors Influencing Vocational Agriculture Students of DeKalb County School System to Select An Agricultural Occupation From 1968-1970. Thesis, M.S., 1971, Alabama A & M University, Normal.

Purpose.-- To identify some relevant factors that influence high school graduates of DeKalb County School System to select an agricultural occupation.

Method.-- A random sample of 160 graduates from eight high schools, offering Vocational Agriculture, in DeKalb County Alabama was used in the study. Ten graduates who had completed the Vocational Agriculture Program in each school and ten graduates who had not completed the Vocational Agriculture Program were used as experimental and control groups, respectively. Data were collected from permanent school records and interviews of Vocational Agriculture teachers and students.

The data used in this study include the effects of place of residence, occupation of parents, grade-point average, and the number of years of Vocational Agriculture completed on students' choice of selecting an agricultural occupation. This study also measured the effects of the number of years of Vocational Agriculture completed on students choice to continue their education in an agricultural or related occupation.

Findings.-- Findings of the study are as follows: (1) There was no significant difference in the proportion of graduates selecting an agricultural related occupation as classified by residence; (2) a significant higher proportion of graduates were employed in agricultural related occupations whose parents were employed in agricultural related occupations; (3) students who selected a non-agricultural related occupation had a mean high school grade-point average significant higher than those who selected an agricultural related occupation; (4) no significant difference was found between the proportion of graduates selecting agricultural related occupations who had completed the Vocational Agriculture Program and those who had not completed the program; and (5) there was no significant difference between the proportion of students who continue their education in an agricultural or related occupation as classified by the number of years of high school Vocational Agriculture completed.

RESEARCH STUDIES IN PROGRESS IN AGRICULTURAL EDUCATION

SOUTHERN REGION

1971-72

RESEARCH STUDIES IN PROGRESS
1971-72

ABSHIRE, ALLISON J. A Study of Dropouts in Louisiana Vocational-Technical Schools. Ph.D. Dissertation. Agricultural Education Department, Louisiana State University, Baton Rouge.

ASIM, IBRAHIM M. Needs of Vocational-Technical Education in Rural Areas of U.A.R. Thesis, M.S. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

ASSASSI, SHANAZ H. The New Concept of Adult Education in Iran. Thesis, M.S. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

BARNES, JAMES R. and RICHARD A. BAKER. Employment Opportunities and Job Performance Area of Workers in Agriculturally-Related Business and Industries in Alabama. Staff Study, Occupational Research and Development Unit, Auburn University, Auburn.

BASS, B. C. Assembling and Using Occupational Data Concerning Former Students of Vocational Agriculture in Virginia. Staff Study. Virginia Polytechnic Institute and State University, Blacksburg.

BYERS, CHARLES W. Relationship of Selected Factors to the Amount and Quality Which Teachers in Kentucky Supervise Students' Experience Programs. Dissertation, Ph.D., The Ohio State University, Columbus.

CHUMBLEY, JOHN. Annual Cost Analysis of Current Vocational and Technical Education Programs in Oklahoma. Dissertation Ed.D., Oklahoma State University, Stillwater.

CRUNKILTON, JOHN R. Testing of Model for Evaluation of Secondary School Programs of Vocational Education in Agriculture - Phase II. Staff Study. Vocational-Technical Division, Agricultural Education, Virginia Polytechnic Institute and State University, Blacksburg.

DENMARK, KENNETH L. Factors Affecting the Identification, Recruiting and Training of Volunteer 4-H Adult Leaders in Texas. Ph.D. Dissertation, Texas A & M University, College Station.

EADDY, VANIK S. A Pilot Study of the Technical Internship Program in Vocational Agribusiness. Staff Study, Department of Vocational and Adult Education, Auburn University, Auburn.

EYUP, CANER. Problems and Economical Analysis of Rural Transportation in Ten West Tennessee Counties. Thesis, M.S. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

FLAGG, RUFUS. Identification of Vocational-Technical Education in Ten West Tennessee Counties. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

GARDNER, MICHAEL. A Comparison of Vocational Funds Received and Expanded and the Instructional Programs Offered in Selected Tennessee High Schools in Districts Prior to and Subsequent to the Passage of 1963 Vocational Education Act. Thesis, M.S. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

GILES, THEODORE. Parental Occupational and Educational Aspiration for Selected Western Tennessee 8th Grade Students as Compared to Their Own Aspirations. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

GREGORY, JAMES C. Educational Interests and Desires for Adult Farmer Instruction in Agriculture in Tennessee. Thesis M.S. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

GRIMES, JAY P. The Application of Closed Circuit Television in Programs of Teacher Education. Ph.D. Dissertation, Texas A & M University, College Station.

HARRIS, ARTHUR. Teaching Plans in Range Management for Bolivar Central High School. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

HARTZOG, WILEY G., JR. An Analysis of the Perceptions of Junior College Occupational Instructors of Entry Level Preparation of Junior College Occupation Instructors. Ed.D. Dissertation, Department of Vocational and Adult Education, Auburn University, Auburn.

HEWLETTEE, STEPHEN. An Evaluation of Curriculum in Vocational Agriculture for Secondary Schools in Middle Tennessee Counties. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

JOHNSON, RAY L. An Occupational Follow-Up Study of Agricultural Education Graduates of North Carolina Agricultural and Technical State University from 1960 through 1970. North Carolina Agricultural & Technical State University, Greensboro.

JUBY, MARCUS. A Study to Determine the Feasibility for Curriculum Modifications in Specialized Vocational Agriculture Mechanics in Oklahoma. Dissertation Ed.D., Oklahoma State University.

KING, LEON. Vocational-Technical Education in Agriculture Resources in the State of Tennessee. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

KNIGHT, EVEL. An Investigation of the Need for Vocational Agricultural Occupation Training in Chicago, Illinois. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

LARK, FLOYD J. Development of A Career Education Program in Agricultural Occupations for Advantaged and Less-Advantaged Rural Youth. Dissertation Ed.D., Oklahoma State University.

LOCKE, KENNETH. A Follow-Up Study of the 1945-70 Bachelor's Degree Graduates of Tennessee State University School of Agriculture. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

LORENZ, LARRY R. Factors Associated With Attrition of Master's Candidates from the Graduate College at Texas A & M University. Ph.D. Dissertation, Texas A & M University, College Station.

MANIGO, ALFRED, JR. Job Opportunities for Vietnam Veterans in South Cambodia. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

MOORE, WILLIE. A Study to Compare the Effects of the Program of the 1970 Farm Bill to the Farm Programs for 1960-70 on the Installations and Maintenance of Environmental Enhancement Practice in Haywood County, Tennessee. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

NELSON, CHARLES. A Study of the Major Causes of Air and Water Pollution and What Can Be Done to Improve It. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

OLIVER, J. DALE, P. S. VIVEKANANTHAN, DONALD E. ELSON, RICHARD K. HILL. An Evaluation System for Vocational Education in Virginia. Staff Study. Division of Vocational Education of the State Department of Education, Richmond.

PATTERSON, GORDON D. and D. N. BOTTOMS. Selected Role Activities Performed by Beginning Vocational Agribusiness Teachers in Alabama. Staff Study, Department of Vocational and Adult Education, Auburn University, Auburn.

PREWITT, GEORGE. Development of Human Resources Through Educational Programs for the Low Income Families in Ten(10) Western Tennessee Counties. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

PRICE, ROBERT R. and JAMES P. KEY. Construction and Evaluation of a Career Development Program in Agricultural Occupations for Advantaged and Less-Advantaged Rural Youth. Department of Agricultural Education, Oklahoma State University.

PRICE, ROBERT R. and H. ROBERT TERRY. A Professional Internship in Vocational Agriculture Occupational Training. Department of Agricultural Education, Oklahoma State University. Stillwater.

RAO, RAMA M. Vocational Agriculture and Its Relationship to the Area Vocational Technical Schools in Middle Tennessee Counties. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

RAO, Y. R. and G. M. TELWAR. A Follow-up Survey Study of June 1970 through June 1971 Graduates Obtaining a Bachelor of Science Degree in Agriculture from Tennessee State University. Staff Study. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

RICHARDSON, BURL B. Factors Affecting the Attrition of Extension Agents in Texas. Ph.D. Dissertation, Texas A & M University, College Station.

RIVERS, LEVE. Job Opportunities in Farm Mechanics in Ten West Tennessee Counties. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

ROBERT, BOBBY. A Comparative Study of Job Placement in Vocational and Technical Occupations of Graduates from Metro Nashville Schools. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

ROBINSON, DAVID. Forestry and J. L. Hollands Typology. Dissertation Ed.D., Oklahoma State University, Stillwater.

SCHUMANN, HERBERT B. Conceptual Variations Concerning the Role of the Teacher of Vocational Agriculture as Perceived by the Teacher and His Principal. Ph.D. Dissertation, Texas A & M University, College Station.

SHILL, JAMES F. Evaluation of Career-Centered Curriculum for Vocational Complexes in Mississippi: An Exemplary Program. Staff Study. Mississippi State University, State College.

SHOEMAKE, R. GLENN. The Vocational Agriculture Program as Viewed by Selected Groups in Mississippi. Thesis M.S., Mississippi State University, State College.

SMITH, CHARLES. Adult Education for the Urban People of Shelby County Tennessee. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

SMITH, JIMMY. A Study to Determine the Relative Influence of Selected Factors and People Upon the Enrollment Decisions of Freshman Class of 1969-70 in the School of Agriculture at Tennessee State University. Thesis M.S. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

SNEED, THOMAS. Rural Housing Conditions in Ten (10) Western Tennessee Counties. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

SNOWDEN, OBED L. Development of a Core Curriculum for Agriculture and Agribusiness on All Levels of Education. Departmental Study. Mississippi State University. State College.

STEWART, JAMES. A Program of Vocational Agriculture for Adult Negro Farmers of the West Tennessee State. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

STOUT, ROBERT. The Development of Group Action Plan to Improve the Environmental Quality in the Rough Rock Community. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

TAYLOR, THOMAS. Spending Patterns of Low Income Negroes in Ten West Tennessee Counties. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

TELWAR, G. M. The Effect of Non-farm Income on the Employment, Level of Living, and Leadership Development of the Rural People in Ten West Tennessee Counties. Staff Study. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

TELWAR, G. M. Determining the Need for Special Programs in Vocational Training for Disadvantaged and Handicapped Students in Tennessee. Staff Study. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

TELWAR, G. M. A Study of Local High School Supervisors Vocational Education. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

VICE, BILLY J. Variables Related to the Offering of Continuing Education in Agriculture in Kentucky. Dissertation Ph.D., The Ohio State University, Columbus.

WALKER, OLIE R. Development and Evaluation of Occupational Information in Agriculture Business. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

WEBER, RICHARD C. Agriculture Mechanization Competencies Needed by Selected Louisiana Farmers With Implications for Program Planning In Adult Education. Dissertation Ph.D., Agricultural Education Department, Louisiana State University, Baton Rouge.

WEBB, EARL S. and DONALD G. HERRING. Participation in Vocational Guidance Activities by Students Enrolled in a Program of Occupational Education. Staff Study. Texas A & M University, College Station.

WHITE, GEORGE L. Determining Employment Opportunities and Training Needs in the Farm Power and Equipment Industry. Staff Study, Vocational Agribusiness Education, Alabama State Department of Education, Montgomery.

WINSTON, JOSEPH. The Relationship Agricultural Interest to Several Other Variables of Eighth Grade Boys in the Western Tennessee Counties. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

WOODARD, TROY. A Comparative Study of Vocational Technical Training between the State of Kentucky and Tennessee, 1970. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

WRIGHT, OZELL. A Study of Socio-Economics Trends and Their Effect on Agriculture in the Barrett's Chapel Community. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

YOUNG, AUBERY J. Job Opportunities for Vietnam Veterans in Ten Counties in West Tennessee. Thesis M.S., Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

## CLASSIFIED INDEX


Page

I. Administration and Supervision. . . . . 1, 18, 28, 47

II. Curriculum Development. . . . . 10, 26

III. Educational Programs

- Adult Education. . . . . 12, 27, 44
- Agricultural Mechanics . . . . . 29, 32, 41, 45
- Cooperative Extension Education . . . . . 25
- Programs for High School Students. . . . . 2, 3, 3, 4, 5, 8, 9, 12, 12, 14, 14, 16, 17, 17, 20 22, 24, 28, 30, 33, 34, 35, 36, 37, 38, 42, 46, 49, 50, 52.
- Technical-Vocational Schools . . . . . 22
- Young Farmer Program . . . . . 19
- Junior College . . . . . 15, 40

IV. Evaluation

- Program Evaluation . . . . . 6, 7, 11, 36

V. Guidance and Counseling

- General. . . . . 30, 43, 49

VI. Occupational Information

- Employment Opportunities . . . . . 2, 23
- Occupational Choice. . . . . 13

VII. Teacher Education

- Curricula. . . . . 21
- Student Teaching . . . . . 39
- Methods, Techniques and Procedures . . . . . 24